GEOLOGY - KING ISLAND SCHEELITE

LOG OF D.D.H. No. D. 020/15

PLANNING

PROPOSER: R. E. S. Davies DEPTH: 20 m

LOCATION: H10 Pit Dag Lower access

PURPOSE OF HOLE: Test Pit Dag Orebody

PROPOSED CO-ORDS: 220 020 E 564 000 N

INCLINATION: -50°

BEARING: 360° °Grid °Mag

TARGET: E N

DEPTH:

CHECKED BY: DATE:

SURVEY

SURVEY CO-ORDS: E N

SURVEYED BEARING: 359° 55' °Grid °Mag

SURVEYED IN BY: DATE:

ACTUAL CO-ORDS: 220 018.41 E 564 001.14 N

R.L. OF COLLAR: -197.25

INCLINATION OF HOLE: -55° 06'

PICKED UP BY: R. Howman DATE: 11/6/81

SUMMARY

LOGGED BY: R.E.S. Davies

RESULTS: 0 - 2 m, 2 m @ 0.41% WO_3 L/C S.O.B.

DRILLING

DATE COMMENCED: 11/6/81 DATE TERMINATED: 13/6/81

DRILLER/CONTRACTOR: S. Batchelor/A.D.D.

CASING: SIZE:
DEPTH:

CORE: SIZE: 46TT
DEPTH:

WEDGE PLACED: DEPTH: PROPOSER:

EXTENSION:

FINAL DEPTH: 21.3 m

REASON FOR TERMINATION: In quartzites

CONDITION OF HOLE ON COMPLETION:

CASING:

CEMENTED:

BORE HOLE SURVEY: NO

WATER:

COMMENTS ON DRILLING CONDITIONS:

GEOLOGY - KING ISLAND SCHEELITE

CORE RECOVERY

D.D.H. No. D 020/15

INTERVAL (m)	LENGTH (m)	LENGTH RECOVERED (m)	% CORE RECOVERY
0.0 - 2.2	2.2	2.0	91
2.2 - 3.8	1.6	1.5	94
3.8 - 6.3	2.5	2.5	100
6.3 - 9.3	3.0	3.0	100
9.3 - 12.3	3.0	3.0	100
12.3 - 15.3	3.0	3.0	100
15.3 - 18.3	3.0	3.0	100
18.3 - 21.3	3.0	3.0	100
EOH 21.3 m			

GEOLOGY - KING ISLAND SCHEELITE

ASSAY DATA

D.D.H. No. D 020/15

SAMPLE NO.	DEPTH (METRES)				ELEMENTS			COMMENTS
	From	To	Length	Length Rec.	WO_3	Mo		
D 13333	0	1	1.0	1.0	0.36			
34	1	2	"	"	0.45			

SPECIFIC GRAVITY

Depth (metres):

Rock Type:

S.G.:

Determined by:

GEOLOGY - KING ISLAND SCHEELITE

GEOLOGICAL LOG

D.D.H. No. D 020/15

Summary

0.0 - 2.2 m gh (b)
2.2 - 12.2 m bph
12.2 - 21.3 m q

0.0 - 2.2 m BANDED GARNET HORNFELS

Moderately mineralised, well bedded garnet hornfels, probably about 0.4% WO_3, ground is broken probably due to blasting effects.

Stratigraphic contact with biotite pyroxene hornfels.

Bedding is @ 65° to LCA @ 1.8 m

2.2 - 12.2 BIOTITE PYROXENE HORNFELS

Well bedded biotite hornfels, pyroxene hornfels, garnet hornfels with biotite hornfels> pyroxene hornfels and only minor grossular. Some mineralised andradite is present @ 5.2 m, 10.2 and 10.4 m.

Ground is competant with 10 - 25 cm sticks.

Bedding	is	@	65°	to	LCA	@ 42 m
"			70			62 m
"			90			83 m
"			60			11.6 m

Contact with quartzite is stratigraphic

12.2 - 21.3 QUARTZITE

Graduational contact with biotite pyroxene hornfels but no marble present.

Core is mostly pale grey, homogeneous and does have some fractures. Core sticks from 5 - 40 cm.

?Bedding is @ 60° to LCA @ 19 cm

Weathered material, possibly fault induced @ 17.5 - 18.4 m and @ 14.4 - 14.7 m

EOH 21.3 m

GEOLOGY - KING ISLAND SCHEELITE

LOG OF D.D.H. No. D 020/14

PLANNING

PROPOSER: R. E. S. Davies DEPTH: 45 m

LOCATION: H10 Pit Dag Lower Access

PURPOSE OF HOLE: Test Pit Dag Orebody

PROPOSED CO-ORDS: 220 020 E 564 000 N

INCLINATION: -90°

BEARING: 0° °GRID °MAG

TARGET: E N

DEPTH:

CHECKED BY: DATE:

SURVEY

SURVEY CO-ORDS: E N

SURVEYED BEARING: °GRID °MAG

SURVEYED IN BY: DATE:

ACTUAL CO-ORDS: 220 018.4 E 564 000.2 N

R.L. OF COLLAR: -197.1

INCLINATION OF HOLE:

PICKED UP BY: R. Howman DATE: 11/6/81

SUMMARY

LOGGED BY: R. E. S. Davies

RESULTS: No economic mineralisation

DRILLING

DATE COMMENCED: 8/6/81 DATE TERMINATED: 10/6/81

DRILLER/CONTRACTOR: S. Batchelor/A.D.D

CASING: SIZE:
DEPTH:

CORE: SIZE: 46TT
DEPTH:

WEDGE PLACED: DEPTH: PROPOSER:

EXTENSION:

FINAL DEPTH: 33 m

REASON FOR TERMINATION: In granite

CONDITION OF HOLE ON COMPLETION:

CASING:

CEMENTED:

BORE HOLE SURVEY: No

WATER:

COMMENTS ON DRILLING CONDITIONS:

GEOLOGY - KING ISLAND SCHEELITE

CORE RECOVERY

D.D.H. No. D 020/14

INTERVAL (m)	LENGTH (m)	LENGTH RECOVERED (m)	% CORE RECOVERY
0.0 - 2.0	2.0	1.8	90
2.0 - 3.5	1.5	1.5	100
3.5 - 6.0	2.5	2.5	100
6.0 - 7.5	1.5	1.5	100
7.5 - 10.5	3.0	3.0	100
10.5 - 13.5	3.0	3.0	100
13.5 - 16.5	3.0	3.0	100
16.5 - 19.0	2.5	2.5	100
19.0 - 21.5	2.5	2.5	100
21.5 - 24.5	3.0	3.0	100
24.5 - 26.5	2.0	2.0	100
26.5 - 28.6	2.1	2.1	100
28.6 - 31.4	2.8	2.6	93
31.4 - 33.0	1.6	1.6	100
EOH 33.0 m			

GEOLOGY - KING ISLAND SCHEELITE

ASSAY DATA

D.D.H. No. D 020/14

SAMPLE NO.	DEPTH (METRES)				ELEMENTS			COMMENTS
	From	To	Length	Length Rec.	WO_3	Mo		
D 13328	0	1	1.0	1.0	0.16			
29	1	2	"	"	0.15			
30	2	3	"	"	0.12			
31	3	4	"	"	0.12			
32	5	6	"	"	0.07			

SPECIFIC GRAVITY

Depth (metres):

Rock Type:

S.G.:

Determined by:

GEOLOGY - KING ISLAND SCHEELITE

GEOLOGICAL LOG

D.D.H. No. D 020/14

Summary

0.0 - 3.4 m gh (b)
3.4 - 15.5 m bph
15.5 - 30.3 m Q
30.3 - 33.0 m Ap

0.0 - 3.4 m BANDED GARNET HORNFELS

Thinly interbedded (5-10 cm) garnet hornfels, pyroxene hornfels, biotite hornfels. Garnet hornfels is moderately well mineralised, and overall the unit is probably about 0.3% WO_3.

Bedding is @ 60° to LCA

The core is competant but has partings every 10 cm.

3.4 - 15.5 BIOTITE PYROXENE HORNFELS

Well interbedded biotite hornfels, pyroxene hornfels, biotite hornfels > pyroxene hornfels, pyroxene hornfels layers usually only a few mm thick.

The ground is mostly competant with sticks generally 5 - 30 cm long.

A bed of mineralised garnet hornfels occurs from 5.4 - 5.7 m.

Bedding	is @	70°	to LCA	@ 4 m
"		45°		7 m
"		45°		9 m
	disturbed from 12.13 m			
"		0°		13.5 m

15.5 - 30.3 QUARTZITES

Although mostly a typical, pale grey high silica quartzite some areas of green sheared ? volcanics are present @ 18.7 - 20.3 m and 21.5 - 23.5 m.

Beyond 24.5 m the core is competant and is present as 20 - 40 cm sticks.

30.3 - 33.0 APLITE

Pink fine grained aplite, probably not the granite contact.

Although quite fractured, the core is fairly competant.

EOH 33.0 m

GEOLOGY - KING ISLAND SCHEELITE

LOG OF D.D.H. No. D 020/13

PLANNING

PROPOSER: G. J. Bujtor DEPTH:

LOCATION: H11 of I12

PURPOSE OF HOLE: To define Pti Dag Orebody

PROPOSED CO-ORDS: 220020 E 564014 N

INCLINATION: +28°

BEARING: 0° °GRID °MAG

TARGET: E N

DEPTH:

CHECKED BY: DATE:

SURVEY

SURVEY CO-ORDS: E N

SURVEYED BEARING: 359° 00' °GRID °MAG

SURVEYED IN BY: DATE:

ACTUAL CO-ORDS: 220020.9 E 564013.7 N

R.L. OF COLLAR: -165.4

INCLINATION OF HOLE: +29° 30'

PICKED UP BY: W. Davies DATE: 13/6/79

SUMMARY

LOGGED BY: G. J. Bujtor

RESULTS: 4.0 m @ 0.53%, 0.01% Mo

DRILLING

DATE COMMENCED: 13/6/79 DATE TERMINATED: 13/6/79

DRILLER/CONTRACTOR: ADD

CASING: SIZE:
DEPTH:

CORE: SIZE: 46TT
DEPTH: 20 ,

WEDGE PLACED: Nil DEPTH: PROPOSER:

EXTENSION: Nil

FINAL DEPTH: 20 m

REASON FOR TERMINATION:

CONDITION OF HOLE ON COMPLETION:

CASING:

CEMENTED:

BORE HOLE SURVEY: Multishot

WATER:

COMMENTS ON DRILLING CONDITIONS: Good

GEOLOGY - KING ISLAND SCHEELITE

SUMMARY BORE HOLE SURVEY DATA

D.D.H. No. D020/13

Surveyed method: Multishot
Final depth: 20.00 m
Casing depth: -

Depth surveyed to: 20.00
Date surveyed: 14/6/79
Surveyed by: L. Denby
Checked by:

Bearing			Inclination		True Vertical Depth (m)	Co-ordinates	
Depth (m)	Grid	Mag.	Read	Corr.		N	W
7 m	356°	346°	60° 15'	+29° 45'	3.47	5.90	1.47
13	358°	348°	61°	+29°	6.38	11.04	2.56
20	360°	350°	61°	+29°	9.77	17.11	3.63

REMARKS:

GEOLOGY - KING ISLAND SCHEELITE

SUMMARY STRUCTURAL DATA

D.D.H. No. D 020/13

DEPTH INTERVAL (METRES)	ROCK TYPE	FRAC-TURES /m	JOINT ANGLE (WRT/ LAOC)	JOINT FILLING	BEDDING ANGLE (W. R. T./ L. A.O.C.)	% CORE RECO-VERY	R. Q. D.	REMARKS (WEATHERING)
0.00 - 10.15 m	L C Lens	4-6		Carb/chl/sulph	25° @ 1.85 m 35° 6.7 m	100	81	
10.15 - 20.00	B/ph	5-15		Sulph/carb/chl	15° @ 11.15 24° 17.5 14° 18.9	100	55	

FURTHER DATA & REMARKS

1. Detailed % core recoveries within each depth interval is shown in the core recovery tabulation.
2. R.Q.D. (rock quality designation) $+= \frac{\text{Length Core} > 10 \text{ cm}}{\text{Length Drilled}}$
3. Core size.

GEOLOGY - KING ISLAND SCHEELITE

CORE RECOVERY

D.D.H. No. D 020713

INTERVAL (m)	LENGTH (m)	LENGTH RECOVERED (m)	% CORE RECOVERY
0.00 - 2.6 m	2.6	2.6	100
2.6 - 5.7	3.1	3.1	100
5.7 - 8.7	3.0	3.0	100
8.7 - 10.7	2.0	2.0	100
10.7 - 12.7	2.0	2.0	100
12.7 - 14.7	2.0	2.0	100
14.7 - 16.7	2.0	2.0	100
16.7 - 18.7	2.0	2.0	100
18.7 - 20.0	1.3	1.3	100
EOH 20.0			

GEOLOGY - KING ISLAND SCHEELITE

ASSAY DATA

D.D.H. No. D 020/13

SAMPLE NO.	DEPTH (METRES)				ELEMENTS			COMMENTS
	From	To	Length	Length Rec.	WO_3	Mo		
D 11325	0	1	1.0	1.0	0.10	0.02		
26	1	2	"	"	0.14	0.01		
27	2	3	"	"	0.32	<0.01		
28	3	4	"	"	0.30	<0.01		
29	4	5	"	"	0.55	<0.01		
30	5	6	"	"	0.95	<0.01		
31	6	7	"	"	0.18	<0.01		
32	7	8	"	"	0.10	<0.01		
33	8	9	"	"	0.32	<0.01		
34	9	10	"	"	0.40	<0.01		
35	10	11	"	"	0.06	0.01		
36	11	12	"	"	<0.01	0.02		

SPECIFIC GRAVITY

Depth (metres):

Rock Type:

S.G.:

Determined by:

GEOLOGY - KING ISLAND SCHEELITE

GEOLOGICAL LOG

D.D.H. No. D 020/13

0.0 - 10.15 m BANDED SKARN - LOWER C LENS

Well bedded though disturbed skarn consisting of andradite, grossular, pyroxene hornfels and minor actinolite hornfels. Some biotite hornfels occur at the top of the unit.

Minor broken core occurs between 6.7 m. Patchy scheelite mineralisation is present, but estimated to be 0.4 - 0.6% WO_3.

Bedding	25^{o}	to	LCA	at 1.85 m
	35^{o}			6.7 m

10.15 - 20.00 BIOTITE/PYROXENE HORNFELS

Well bedded sequence of biotite hornfels/pyroxene hornfels with obvious disturbance. No scheelite is present.

The core is fractured and broken particularly from 11.0 - 12.7 m; 14.5 - 15.7 m (obvious slickensides present - probable fault); 19.5 - 20.00 m.

Pyrite is present throughout the core, but particularly abundant around 17 - 20 m.

A recemented breccia occurs around 18.5 m.

Bedding is variable -

Bedding	15^{o}	to	LCA	at 11.15 m
Bedding	24^{o}			17.5 m
Bedding	14^{o}			18.9 m

EOH 20.0 m

GEOLOGY - KING ISLAND SCHEELITE

CHECK ASSAY DATA

D.D.H. No. D 020/13

LAB.	K.I.S.		LAB.	K.I.S. CHECK		LAB.	AMDEL		LAB.	A.C.S.L.		
Original Sample No.	WO_3	Mo	Check Sample No.	WO_3	Mo	Check Sample No.	WO_3	Mo	Check Sample No.	WO_3	Mo	
11331	0.81	<0.01	12027	0.15		12028	0.22		12029	0.21		

GEOLOGY - KING ISLAND SCHEELITE

LOG OF D.D.H. No. D 020/12

PLANNING

PROPOSER: G. J. Bujtor DEPTH:

LOCATION: H11 off I12

PURPOSE OF HOLE: To Define Pit Dag Orebody

PROPOSED CO-ORDS: 220020 E 564014 N

INCLINATION: -36°

BEARING: 0° °GRID °MAG

TARGET: E N

DEPTH:

CHECKED BY: DATE:

SURVEY

SURVEY CO-ORDS: E N

SURVEYED BEARING: 356° 50' °GRID °MAG

SURVEYED IN BY: DATE:

ACTUAL CO-ORDS: 220020.5 E 564013.1 N

R.L. OF COLLAR: R-167.8

INCLINATION OF HOLE: -35° 00'

PICKED UP BY: R. Howman DATE: 12/6/79

SUMMARY

LOGGED BY: G. J. Bujtor

RESULTS:

DRILLING

DATE COMMENCED: 8/6/79 DATE TERMINATED: 11/6/79

DRILLER/CONTRACTOR: ADD

CASING: SIZE:
DEPTH:

CORE: SIZE: 46TT
DEPTH: 20

WEDGE PLACED: Nil DEPTH: PROPOSER:

EXTENSION: -

FINAL DEPTH: 20m

REASON FOR TERMINATION:

CONDITION OF HOLE ON COMPLETION:

CASING:

CEMENTED:

BORE HOLE SURVEY: Multi-shot

WATER:

COMMENTS ON DRILLING CONDITIONS: Good

GEOLOGY - KING ISLAND SCHEELITE

SUMMARY BORE HOLE SURVEY DATA

D.D.H. No. D 020/12

Surveyed method: Multishot
Final depth: 20.00
Casing depth: -

Depth surveyed to:20.00m
Date surveyed: 11/6/79
Surveyed by: L. Denby
Checked by:

Bearing			Inclination		True Vertical Depth (m)	Co-ordinates	
Depth (m)	Grid	Mag.	Read	Corr.		N	W
4	002°	352	54°	-36°	3.24	2.33	0.33
10	358°	348	54° 15'	-35° 45'	8.11	5.76	1.06
20	357°	347	53° 45'	-36° 15'	16.17	11.52	2.39

REMARKS:

GEOLOGY - KING ISLAND SCHEELITE

CORE RECOVERY

D.D.H. No. D 020/12

INTERVAL (m)	LENGTH (m)	LENGTH RECOVERED (m)	% CORE RECOVERY
0.0 - 3.4	3.4	2.4	71
3.4 - 4.9	1.5	1.5	100
4.9 - 7.0	2.1	2.1	100
7.0 - 8.5	1.5	1.5	100
8.5 - 10.0	1.5	1.5	100
10.0 - 11.5	1.5	1.5	100
11.5 - 13.0	1.5	1.5	100
13.0 - 14.5	1.5	1.5	100
14.5 - 16.0	1.5	1.5	100
16.0 - 17.5	1.5	1.5	100
17.5 - 19.0	1.5	1.5	100
19.0 - 20.0	1.0	1.0	100
EOH 20.0m			

GEOLOGY - KING ISLAND SCHEELITE

SUMMARY STRUCTURAL DATA

D.D.H. No. D 020/12

DEPTH INTERVAL (METRES)	ROCK TYPE	FRAC-TURES /m	JOINT ANGLE (WRT/ LAOC)	JOINT FILLING	BEDDING ANGLE (W.R.T./ L.A.O.C.)	% CORE RECO-VERY	R.Q.D.	REMARKS (WEATHERING)
0.0 - 1.8m	Bh	> 20		Chl/clay/sulph	S_1 20°: 1m	71	6	
1.8 - 7.3	Banded gh	5-8		Chl/clay/carb	42°: 3m 45°: 37m	100	76	
7.3 - 20.0	Bh/Ph	6-7		Chl/carb/sulph	70°: 9.1m 66°:13.1 67°:16.4 42°:19.6	100	73	
EOH 20.0m								

FURTHER DATA & REMARKS

1. Detailed % core recoveries within each depth interval is shown in the core recovery tabulation.
2. R.Q.D. (rock quality designation) $+= \frac{\text{Length Core} > 10 \text{ cm}}{\text{Length Drilled}}$
3. Core size. 46TT

GEOLOGY - KING ISLAND SCHEELITE

ASSAY DATA

D.D.H. No. D 020/12

SAMPLE NO.	DEPTH (METRES)				ELEMENTS			COMMENTS
	From	To	Length	Length Rec.	WO_3	Mo		
D 10647	2	3	1.0	1.0	0.10	0.01		
48	3	4	"	"	0.63	0.02		
49	4	5	"	"	0.32	0.01		
50	5	6	"	"	0.46	0.02		
51	6	7	"	"	0.71	0.02		
52	7	8	"	"	0.07	0.01		
53	8	9	"	"	<0.01	<0.01		

SPECIFIC GRAVITY

Depth (metres):

Rock Type:

S.G.:

Determined by:

GEOLOGY - KING ISLAND SCHEELITE

GEOLOGICAL LOG

D.D.H. No. D 020/12

0.0 - 1.80m **BIOTITE HORNFELS**

Sheared, fractured and broken biotite hornfels with shearing (S_1) at 20° to LCA. No scheelite is present.

1.80 - 7.30 **BANDED SKARN - LOWER C LENS**

Well bedded skarn consisting of pyroxene hornfels, grossular garnet, andradite and minor unreplaced marbles (ie. 5.85m).

Patchy scheelite is present, particularly from 3.0 - 7.0m (0.5 - 0.6% WO_3 estimate).

The top of the unit is slightly broken. Bedding is disturbed between 4.5 - 6.0m and resembles more a pyroxene-grossular rich rock (associated with faulting)

Bedding	42°	to LCA at	3.0m
Bedding	45°		3.7m

7.30 - 20.0 **BIOTITE/PYROXENE HORNFELS**

Well bedded biotite hornfels/pyroxene hornfels with minor grossular interbed between 14.2 - 15.5m (minor scheelite is present with the grossular).

Minor broken core occurs between 7.5 - 8.0m; 15.8 - 16.2m

Bedding	70°	to LCA at	9.1m
Bedding	66°		13.1m
Bedding	67°		16.4
Bedding	42°		19.6m

EOH 20.0

GEOLOGY - KING ISLAND SCHEELITE

CHECK ASSAY DATA

D.D.H. No. D 020/12

LAB.	K.I.S.		LAB.	K.I.S. CHECK		LAB.	AMDEL		LAB.	A.C.S.L.		
Original Sample No.	WO_3	Mo	Check Sample No.	WO_3	Mo	Check Sample No.	WO_3	Mo	Check Sample No.	WO_3	Mo	
10649	0.32	0.01	11982	0.34		11983	0.36		11984	0.28		

GEOLOGY - KING ISLAND SCHEELITE

LOG OF D.D.H. No. D 020/11

PLANNING

PROPOSER: G. J. Bujtor DEPTH:

LOCATION: H11 off I12

PURPOSE OF HOLE: To Define Pit Dag Orebody

CO-ORDS: 220020 E 564014 N

INCLINATION: -70°

BEARING: 0° °GRID °MAG

TARGET: E N

SURVEY

SURVEY CO-ORDS: E N

SURVEYED BEARING: 351° 20' °GRID °MAG

SURVEYED IN BY: DATE:

ACTUAL CO-ORDS: 220020.5 E 564011.8 N

R.L. OF COLLAR R - 167.8

INCLINATION OF HOLE -68° 40'

PICKED UP BY: R. H. DATE: 12/6/79

SUMMARY

LOGGED BY: G. J. Bujtor

RESULTS: 6.0 - 10.0m 4m @ 1.10% WO_3

DRILLING

DATE COMMENCED: 7/6/79 DATE TERMINATED: 8/6/79

DRILLER/CONTRACTOR: ADD

CASING: SIZE:
DEPTH:

CORE: SIZE: 46TT
DEPTH: 30m

WEDGE PLACED: Nil DATE:

EXTENSION: Nil

FINAL DEPTH: 30m

REASON FOR TERMINATION:

CONDITION OF HOLE ON COMPLETION:

CASING:

CEMENTED:

BORE HOLE SURVEY: multishot

WATER:

COMMENTS ON DRILLING CONDITIONS: Good

GEOLOGY - KING ISLAND SCHEELITE

SUMMARY BORE HOLE SURVEY DATA

D.D.H. No. D 020/11

Survey method: Multishot
Final depth: 30.00m
Casing depth:

Depth surveyed to: 30.00m
Date surveyed: 8/6/79
Surveyed by: L. Denby
Checked by: G. J. Bujtor

Bearing			Inclination		True vertical Depth (m)	Co-ordinates	
Depth (m)	Grid	Mag.	Read	Corrected		N	W
4m	1°	351°	22	-68	3.71	1.36	.22
16	347°	337°	21	-69	14.91	5.32	1.90
22	347°	337°	21°15'	-68°45'	20.50	7.32	2.72
30	347°	337°	21°15'	-68°45'	27.96	9.99	3.85

REMARKS:

GEOLOGY - KING ISLAND SCHEELITE

CORE RECOVERY

D.D.H. No. D 020/11

INTERVAL (m)	LENGTH (m)	LENGTH RECOVERED (m)	% CORE RECOVERY
0.0 - 1.25	NO CORE		
1.25 - 3.40	2.15	1.80	84
3.40 - 5.80	2.4	2.4	100
5.80 - 8.60	2.8	2.8	100
8.60 - 11.60	3.0	3.0	100
11.60 - 14.60	3.0	3.0	100
14.60 - 17.60	3.0	3.0	100
17.60 - 20.60	3.0	3.0	100
20.60 - 23.50	2.9	2.9	100
23.50 - 26.50	3.0	3.0	100
26.50 - 28.70	2.2	2.2	100
28.70 - 30.00	1.3	1.3	100
EOH 30.00m			

GEOLOGY - KING ISLAND SCHEELITE

SUMMARY STRUCTURAL DATA

DDH No. D 020/11

DEPTH INTERVAL (METRES)	ROCK TYPE	FRAC-TURES /m	JOINT ANGLE (WRT LAOC)	JOINT FILLING	BEDDING ANGLE (W.R.T. L.A.O.C.)	% CORE RECO-VERY	R.Q.D.	REMARKS (WEATHERING)
0.0 - 2m	bh	>20	43° -19m	Chl/carb/sulph		0	0	
2.0 - 10m	Pgh	4		Chl/carb/sulph		100	95	
10.0 - 28.3	bh/ph	6		Chl/sulph/carb clay	57° - 11.45 86° - 17.5 63° - 23.15 75° - 25.25	100	83	
28.3 - 30.0	Vol	7		Chl/clay		100	88	

FURTHER DATA & REMARKS

1. Deatiled % core recoveries within each depth interval is shown in the core recovery tabulation.
2. R.Q.D. (rock quality designation) += $\frac{\text{Length Core 10 cm}}{\text{Length Drilled}}$ %
3. Core size.

GEOLOGY - KING ISLAND SCHEELITE

ASSAY DATA

D.D.H. No. D 020/11

Sample No.	DEPTH (METRES)				ELEMENTS			COMMENTS
	From	To	Length	Length Recovered	WO_3	Mo		
D 10530	2	3	1.0	1.0	<0.01	<0.01		
31	3	4	"	"	<0.01	<0.01		
32	4	5	"	"	0.11	0.01		
33	5	6	"	"	0.23	0.01		
34	6	7	"	"	0.84	0.02		
35	7	8	"	"	0.45	0.01		
36	8	9	"	"	1.70	0.03		
37	9	10	"	"	1.42	0.02		
38	10	11	"	"	<0.01	<0.01		
39	11	12	"	"	0.01	<0.01		

SPECIFIC GRAVITY

Depth (metres);

Rock Type :

S.G. :

Determined by:

GEOLOGY - KING ISLAND SCHEELITE

GEOLOGICAL LOG

D.D.H. No. D 020/11

0.0 - 1.25m NO CORE

1.25 - 2.70 BIOTITE HORNFELS

Medium grained dark brown coloured biotite hornfels. The unit is badly broken and fractured at the top - possibly due to blasting in H11 drive.

Shearing appears to be present -

Bedding 43^{o} to LCA at 1.9m

2.70 - 10.00 PYROXENE - GARNET - HORNFELS(?) -- SKARN

Unit somewhat resembles a Pyroxene garnet hornfels but more likely to be a pyroxene - grossualr rich rock associated with faulting. Some pods and fragmetns of marble are present but most are replaced by pink grossular.

Andradite skarn (coarse and massive) occurs patchily from 7.8 - 10.0m. Most of the scheelite mineralisation present occurs within this zone. Probably ore grade scheelite occurs from 6.1 - 9.8m

A crude orientation within the unit is at 45^{o} to LCA.

10.0 - 28.30 BIOTITE HORNFELS/PYROXENE HORNFELS

Well bedded sequence of biotite hornfels/pyroxene hornfels with grossular garnet interbeds at the base of the unit from 23.5 - 28.3m. Micro fractureing and faulting, together with evidence of soft sediment disturbance occurs throughout, particularly at the top of the unit from 10.00 - 11.00m.

Some patchy scheelite is present but unlikly to go ore grade - 17.8 18.1; around 19.15m; around 26.6m.

Minor broken core occurs between 13-15m. A dyke (lamprophye?) occurs form 13.4 - 14.1m

Bedding	57^{o}	to	LCA	at 11.45m
	86^{o}			17.5m
	63^{o}			23.15m
	75^{o}			25.25m

28.30 - 30.00 LOWER VOLCANICS

Coarse grained, greenish grey coloured, spotted volcanic rock with no visible scheelite present. The top of the unit at 28.3m is very chloritic and clayey and may well be faulted.

EOH 30.00m

GEOLOGY - KING ISLAND SCHEELITE

LOG OF D.D.H. No. D 020/10

PLANNING

PROPOSER: G. J. Bujtor DEPTH:

LOCATION: H11 off I12

PURPOSE OF HOLE: To define mineralisation intersected in D 020/8

CO-ORDS: 220020 E 564014 N

INCLINATION: -25 to -26°

BEARING: 180° °GRID °MAG

TARGET: E N

SURVEY

SURVEY CO-ORDS: E N

SURVEYED BEARING: 180°10' °GRID °MAG

SURVEYED IN BY: DATE:

ACTUAL CO-ORDS: 220021.0 E 564010.0 N

R.L. OF COLLAR R 167.3

INCLINATION OF HOLE: -24°20'

PICKED UP BY: R. H. DATE: 12/6/79

SUMMARY

LOGGED BY:

RESULTS: Patchy sub grade mineralization between 29.0m @ 33.0m and 87.0m & 94.0m

DRILLING

DATE COMMENCED: 29.5.79 DATE TERMINATED: 6/6/79

DRILLER/CONTRACTOR: ADD

CASING: SIZE:
DEPTH:

CORE: SIZE: 46TT
DEPTH: 118

WEDGE PLACED: Nil DATE:

EXTENSION: Nil

FINAL DEPTH: 118m

REASON FOR TERMINATION:

CONDITION OF HOLE ON COMPLETION:

CASING:

CEMENTED:

BORE HOLE SURVEY: Multishot

WATER:

COMMENTS ON DRILLING CONDITIONS: Good

GEOLOGY - KING ISLAND SCHEELITE

CORE RECOVERY

D.D.H. No. 020/10

INTERVAL (m)	LENGTH (m)	LENGTH RECOVERED (m)	% CORE RECOVERY
0.0 - 5.2	5.2	5.2	100
5.2 - 5.6	0.4	0.5	80
5.6 - 8.4	2.8	2.8	100
8.4 - 11.4	3.0	3.0	100
11.4 - 14.4	3.0	3.0	100
14.4 - 17.4	3.0	3.0	100
17.4 - 20.4	3.0	3.0	100
20.4 - 23.4	3.0	3.0	100
23.4 - 26.4	3.0	3.0	100
26.4 - 29.4	3.0	3.0	100
29.4 - 32.4	3.0	3.0	100
32.4 - 35.4	3.0	3.0	100
35.4 - 38.4	3.0	3.0	100
38.4 - 41.4	3.0	3.0	100
41.4 - 44.4	3.0	3.0	100
44.4 - 47.4	3.0	3.0	100
47.4 - 50.4	3.0	3.0	100
50.4 - 53.4	3.0	3.0	100
53.4 - 56.4	3.0	3.0	100
56.4 - 59.4	3.0	3.0	100
59.4 - 62.4	3.0	3.0	100
62.4 - 65.4	3.0	3.0	100
65.4 - 68.4	3.0	3.0	100
68.4 - 71.4	3.0	3.0	100
71.4 - 74.4	3.0	3.0	100
74.4 - 77.4	3.0	3.0	100
77.4 - 80.4	3.0	3.0	100
80.4 - 83.4	3.0	3.0	100
83.4 - 86.4	3.0	3.0	100
86.4 - 89.3	2.9	2.9	100
89.3 - 92.3	3.0	3.0	100
92.3 - 95.3	3.0	3.0	100
95.3 - 98.3	3.0	3.0	100
98.3 - 101.3	3.0	3.0	100
101.3 - 104.3	3.0	3.0	100
104.3 - 107.3	3.0	3.0	100
107.3 - 110.2	2.9	2.9	100
110.2 - 112.6	2.4	2.4	100
112.6 - 115.6	3.0	3.0	100
115.6 - 118.0	2.4	2.4	100
EOH 118.0m			

GEOLOGY - KING ISLAND SCHEELITE

SUMMARY STRUCTURAL DATA

DDH No. D 020/10

DEPTH INTERVAL (METRES)	ROCK TYPE	FRACTURES /m	JOINT ANGLE (WRT LAOC)	JOINT FILLING	BEDDING ANGLE (W.R.T. L.A.O.C.)	% CORE RECOVERY	R.Q.D.	REMARKS (WEATHERING)
0 - 3	bh	10-20		Chl/sulph/carb	40° - 1.0m		28%	
3 - 9.05	Ch	8		Chl/clay/carb			75%	
9.05 - 19.15	bh	7-12		Chl/carb/clay	42°-12.9 15°-18.3		64%	
19.15 - 33.3	Ch, B lens	5		Chl/carb/clay	37°-21.4 31°-25.4		85%	
33.3 - 41.4	bh	4-5		Chl/sulph/carb	30°-41m 45°-41.95		94%	
41.4 - 56.4	bh	4-6		Chl/sulph/carb			84%	
56.4 - 71.4	bh	3-7		Chl/sulph/carb	25°-73.8 16°-80.7		84	
71.4 - 89.9	bh	4-12	22° at 87.6m	chl/sulph/Qtz carb	23°-83.5		83%	
89.9 - 93.8	Ch	5-11		Chl/carb/clay			79%	
93.8 - 101.2	Vol	8-15		Chl/sulph/clay			95%	
101.2 - 112.85	bh	4-10		Chl/clay/sulph carb	24°-103.1		63%	

FURTHER DATA & REMARKS

1. Deatiled % core recoveries within each depth interval is shown in the core recovery tabulation.
2. R.Q.D. (rock quality designation) += $\frac{\text{Length Core 10 cm}}{\text{Length Drilled}}$ %
3. Core size.

GEOLOGY - KING ISLAND SCHEELITE

SUMMARY STRUCTURAL DATA

DDH No. D 020/10

DEPTH INTERVAL (METRES)	ROCK TYPE	FRAC-TURES /m	JOINT ANGLE (WRT LAOC)	JOINT FILLING	BEDDING ANGLE (W.R.T. L.A.O.C.)	% CORE RECO-VERY	R.Q.D.	REMARKS (WEATHERING)
113.85 - 113.95	FAULT ZONE							
133.95 - 115.6	Vol	7-10		Chl/clay/sulph			53%	
115.6 - 116.2	FAULT ZONE							
116.2 - 118	Ch	4		Chl/clay/carb			100%	
EOH 118m								

FURTHER DATA & REMARKS

1. Deatiled % core recoveries within each depth interval is shown in the core recovery tabulation.
2. R.Q.D. (rock quality designation) $+= \frac{\text{Length Core 10 cm}}{\text{Length Drilled}}$ %
3. Core size.

GEOLOGY - KING ISLAND SCHEELITE

ASSAY DATA

D.D.H. No. D 020/10

Sample No.	DEPTH (METRES)				ELEMENTS			COMMENTS
	From	To	Length	Length Recovered	WO_3	Mo		
D 10526	2	3	1.0	1.0	0.01	0.01		
27	3	4	"	"	0.09	0.01		
28	4	5	"	"	0.02	0.01		
29	5	6	"	"	<0.01	<0.01		
01	18	19	"	"	0.03	0.02		
02	19	20	"	"	0.49	0.01		
03	20	21	"	"	<0.01	0.02		
04	21	22	"	"	0.19	<0.01		
05	22	23	"	"	1.46	0.01		
06	23	24	"	"	0.05	<0.01		
07	24	25	"	"	<0.01	<0.01		
08	25	26	"	"	<0.01	<0.01		
09	26	27	"	"	<0.01	<0.01		
10	27	28	"	"	<0.01	<0.01		
11	28	29	"	"	<0.01	0.01		
12	29	30	"	"	0.47	0.01		
13	30	31	"	"	0.18	0.02	4m @	0.37% WO_3
14	31	32	"	"	0.50	0.01		
15	32	33	"	"	0.32	0.01		
16	33	34	"	"	0.13	0.01		
17	34	35	"	"	0.01	0.01		
18	87	88	"	"	0.19	0.04		
19	88	89	"	"	0.48	0.02		
20	89	90	"	"	0.12	0.04	3m @	0.34% WO_3
21	90	91	"	"	0.42	0.02		
22	91	92	"	"	0.20	0.01		
23	92	93	"	"	<0.01	0.01		
24	93	94	"	"	0.25	0.01		
25	94	95	"	"	0.03	0.02		

SPECIFIC GRAVITY

Depth (metres);

Rock Type :

S.G. :

Determined by:

GEOLOGY - KING ISLAND SCHEELITE

GEOLOGICAL LOG

D.D.H. No. D 020/10

0.0 - 3.0m BIOTITE HORNFELS

Fine grained brown coloured biotite hornfels with numerous pyroxene hornfels alteration bands and patches. No scheelite mineralisation is present.

The core is broken and fractured

Bedding 40^{o} to LCA at 1.0m

3.0 - 9.05 MARBLE - B-LENS

Grey coloured, disturbed marbles with numerous pyroxene alteration zones, particularly at the top of the sequence from 3.0 - 4.0m

Minor scheelite mineralisation is present from 3.8 - 4.5m

A dyke rock (grey and ?siliceous looking (in some of the other 020 section holes called lampropkye dyke?) occurs form 5.2 - 5.55m.

The base of the sequence could be faulted.

9.05 - 19.15 BIOTITE HORNFELS

Fine to medium grained dark brown to greyish coloured biotite hornfels with no visible scheelite present.

The unit appears very much sheared in places (representing fault zones) such as around 10.4m (slickensides present) and 18.2 - 19.0m (excellent slickensides developed).

Evidence of sediment mobility and interval brecciation is common.

A grey coloured dyke rock, similar to that occurring above is present form 9.4 - 9.9m.

S_1 42^{o} to LCA at 12.9m
S_1 15^{o} 18.3m

19.15 - 33.30 MARBLE - SKARN: B-LENS

A B-lens squence consisting dominantly of marble with grossular, andradite and pyroxene skarn enrichment at both the hangingwall (19.15 - 20.1m) and footwall (29.3 - 33.3m) contacts with biotite hornfels.

Minor skarn development also occurs from 21.6 - 23.6m. All these zones carry fine disseminated scheelite.

Clay, carbonate coated joint and fractures are common. Minor leached and broken ground occurs from 28 - 29.3m.

Bedding 37^{o} to LCA at 21.4m
Bedding 31^{o} 25.4m

GEOLOGY - KING ISLAND SCHEELITE

GEOLOGICAL LOG

D.D.H. No. D 020/10

33.3 - 56.25m BIOTITE HORNFELS

Dark black to brown coloured biotite hornfels with minor pyroxene hornfels the base of the unit from 53.0 - 34.8m. No scheelite is present. The unit is pretty well featureless throughout.

	S_1	30^o	to LCA at	41.0m
Bedding		45^o		41.95m

56.25 - 58.25 SKARN - MARBLE - BIOTITE HORNFELS

Disturbed unit, patchily mineralised, consisting of skarn, Marble, pyroxene hornfels and biotite hornfels with minor sulphides. A quartz/granitic vein is present along portion of the core.

58.25 - 59.15 GRANITE/APLITE

Coarse grained and siliceous granitic/aplite dyke.

59.15 - 62.05 VOLCANICS?

Coarse grained greenish coloured unit resembling volcanics. Fine pyrite is disseminated throughout. Some biotite hornfels and pyroxene hornfels is also present as is minor scheelite mineralisation, especially adjacent to the aplite/granite dyke above.

62.05 - 66.2 GRANITE

Coarse grained granitic dyke with a very siliceous finer grained phase at the base. No scheelite is present, but a dark mafic xenolith occurs around 41.2m. Coarse, large K - feldspar crystals are present in the granite.

66.20 - 89.9 (?) BIOTITE HORNFELS

Fine grained brownish coloured biotite hornfels with abundant pyroxene hornfels/actinolite hornfels alteration zones and patches. Minor grossular garnet and andradite is also present, particularly from 74.6 - 78.4m (minor scheelite from 75.6 - 75.8m); 81.0 - 83.4 (minor skarn, scheelite epidote and carbonate).

In general the core is quite competent throughout. Broken brecciated core with carbonate veining occurs at 82.8 - 82.9m (probable fault); fractured and broken core occurs from 86 - 88.9m where numerous siliceous dykes are present.

	Bedding	25^o	to LCA at	73.8m
	Bedding	16^o		89.7m
	Bedding	23^o		83.5m
(fault?)	S_1	22^o		87.6m

GEOLOGY - KING ISLAND SCHEELITE

GEOLOGICAL LOG

D.D.H. No. D 020/10

89.90 - 93.80 MARBLE

Probably B-lens marble - disturbed and pyroxene enriched along Highwall and Footwall contacts. Good grade scheelite occurs in the Highwall zone from 90.1 - 90.75m.

Footwall contact may well be faulted.

93.80 - 101.2 VOLCANICS?

Coarse grained greenish coloured volcanic - looking unit with abundant fine pyrite and mica mineral throughout. In places (96.7m) the unit is quite coarsely spotted. the possibility of sheared biotite hornfels cannot be excluded.

No scheelite mineralisation is present. Aplite - quartz dyke occurs form 98.2 - 98.35m.

The top of the unit down to 95.3m is very chloritic and sheared.

An interbed of biotite hornfels occurs form 97.1 - 97.65m.

101.2 - 113.85 BIOTITE HORNFELS

Fine grained dark brown coloured biotite hornfels with numerous pyroxene hornfels zones and patches from 101.2 - 108.6m. No scheelite is present.

Sheared and fractured core 107.3m. The unit in places is quite disturbed as evidenced by broken up bedding around 106.8m.

Bedding 24^{o} to LCA at 103.1m

113.85 - 113.95 FAULT ZONE

Very sheared, clay, fractured fault zone.

113.95 - 115.60 VOLCANICS

Coarse grained, grey-greenish coloured spotted volcanics similar to that above. No scheelite is present.

115.60 - 116.2 FAULT ZONE

Sheared, clay pug fault zone.

116.2 - 118.0 MARBLE

Probable B-lens marble - very disturbed, grey in colour and no visible bedding present. No scheelite present.

EOH 118.0m

GEOLOGY - KING ISLAND SCHEELITE

SUMMARY BORE HOLE SURVEY DATA

D.D.H. No. D 020/10

Surveyed method: Multishot
Final depth: 118.00 m
Casing depth:

Depth surveyed to: 118.00 m
Date surveyed: 6/6/79
Surveyed by: L. Denby
Checked by:

Bearing			Inclination		True Vertical Depth (m)	Co-ordinates	
Depth (m)	Grid	Mag.	Read	Corr.		S	E
7	180° 30'	170° 30'	65°	-25°	2,96	6.25	1.05
22	181°	171°	64° 45'	-25° 15'	9,36	19.65	3.17
37	181°	171°	64° 45'	-25° 15'	15,76	33.05	5.29
43	181°	171°	64° 45'	-25° 15'	18,32	38.41	6.14
49	183°	173°	64° 45'	-25° 15'	20.88	43.80	6.80
61	182°	172°	63° 45'	-25° 15'	26.00	54.54	8.31
73	182° 30'	172° 30'	64°	-26°	31.26	65.24	9.72
85	182°	172°	64°	-26°	36.52	75.93	11.22
97	182°	172°	64°	-26°	41.78	86.62	12.72
112	182°	172°	63° 45	-26° 15'	48.41	99.94	14.59
118	182°	172°	64°	-26°	51.04	105.28	15.34

REMARKS:

GEOLOGY - KING ISLAND SCHEELITE

CHECK ASSAY DATA

D.D.H. No. D 020/10

LAB.	K.I.S.		LAB.	K.I.S. CHECK		LAB.	AMDEL		LAB.	A.C.S.L.		
Original Sample No.	WO_3	Mo	Check Sample No.	WO_3	Mo	Check Sample No.	WO_3	Mo	Check Sample No.	WO_3	Mo	
10502	0.49	0.01	11943	0.61		11944	0.55		11945	0.45		
10513	0.18	0.02	11946	0.26		11947	0.24		11948	0.17		
10522	0.20	0.01	11949	0.16		11950	0.2		11951	0.11		

GEOLOGY - KING ISLAND SCHEELITE

LOG OF D.D.H. No. D 020/9

PLANNING

PROPOSER: G. J. Bujtor DEPTH:

LOCATION: H11 of I12

PURPOSE OF HOLE: To Define Southern Area and/or Pit Dag Orebody

PROPOSED CO-ORDS: 220020 E 564012 N

INCLINATION: -84°

BEARING: 180° °GRID °MAG

TARGET: E N

DEPTH:

CHECKED BY: DATE:

SURVEY

SURVEY CO-ORDS: E N

SURVEYED BEARING: 177° 30' GRID °MAG

SURVEYED IN BY: DATE:

ACTUAL CO-ORDS: 220021.0 E 564011.5 N

R.L. OF COLLAR: R-167.9

INCLINATION OF HOLE: -81° 20'

PICKED UP BY: R. Howman DATE: 24/5/79

SUMMARY

LOGGED BY: G. J. Bujtor

RESULTS: 10.0m - 21.0m 11m @ 1.33 % WO_3

DRILLING

DATE COMMENCED: 24/5/79 DATE TERMINATED: 29/5/69

DRILLER/CONTRACTOR: ADD

CASING: SIZE:
DEPTH:

CORE: SIZE: 46TT
DEPTH: 61.8

WEDGE PLACED: DEPTH: PROPOSER:

EXTENSION:

FINAL DEPTH: 61.80m

REASON FOR TERMINATION: Intersected Aplite/granite

CONDITION OF HOLE ON COMPLETION:

CASING:

CEMENTED:

BORE HOLE SURVEY: Surveyed at

WATER:

COMMENTS ON DRILLING CONDITIONS:

GEOLOGY - KING ISLAND SCHEELITE

SUMMARY BORE HOLE SURVEY DATA

D.D.H. No. D 020/9

Surveyed method: Multi shot
Final depth: 61.80m
Casing depth: 1.00m

Depth surveyed to: 61.80m
Date surveyed: 29.5.79
Surveyed by: L. Denby
Checked by:

Bearing			Inclination		True Vertical Depth (m)	Co-ordinates	
Depth (m)	Grid	Mag.	Read	Corr.		S	E
11	179°	169°	9°	-81°	10.86	1.69	.33
22	181°	171°	9°	-81°	21.72	3.39	.60
37	184°	174°	9° 15'	-80° 45'	36.53	5.79	.85
53	184°	174°	9° 15'	-80° 45'	52.32	8.35	1.12
61.80	184°	174°	9° 15'	-80° 45'	61.01	9.75	1.27

REMARKS:

GEOLOGY - KING ISLAND SCHEELITE

CORE RECOVERY

D.D.H. No. D 020/9

INTERVAL (m)	LENGTH (m)	LENGTH RECOVERED (m)	% CORE RECOVERY
0.0 - 3.0m	3.0	2.5	83
3.0 - 5.8	2.8	2.8	100
5.8 - 8.8	3.0	3.0	100
8.8 - 11.8	3.0	3.0	100
11.8 - 14.8	3.0	3.0	100
14.8 - 17.8	3.0	3.0	100
17.8 - 20.8	3.0	3.0	100
20.8 - 23.8	3.0	3.0	100
23.8 - 26.8	3.0	3.0	100
26.8 - 29.8	3.0	3.0	100
29.8 - 32.8	3.0	3.0	100
32.8 - 35.8	3.0	3.0	100
35.8 - 38.8	3.0	3.0	100
38.8 - 41.8	3.0	3.0	100
41.8 - 44.8	3.0	3.0	100
44.8 - 47.8	3.0	3.0	100
47.8 - 50.8	3.0	3.0	100
50.9 - 53.7	2.9	2.9	100
53.7 - 56.5	2.8	2.8	100
56.5 - 58.8	2.3	2.3	100
58.8 - 61.8	3.0	3.0	100
EOH 61.80m			

GEOLOGY - KING ISLAND SCHEELITE

SUMMARY STRUCTURAL DATA

D.D.H. No. D 020/9

DEPTH INTERVAL (METRES)	ROCK TYPE	FRAC-TURES /m	JOINT ANGLE (WRT/ LAOC)	JOINT FILLING	BEDDING ANGLE (W.R.T./ L.A.O.C.)	% CORE RECO-VERY	R.Q.D.	REMARKS (WEATHERING)
0.0 - 4.85	bh	8		Chl/carb/sulph	44^{o} - 4.5m	100	51	
4.85 - 14.0	pgh/UL	4-5		Chl/carb/sulph		100	90	
14.0 - 15.8	Dyke	15		Chl			46	
15.8 - 24.0	L/C	4-8		Chl/clay/carb/sulph		100	88	
24.0 - 43.65	bh/ph	5		Chl/carb/sulph	43^{o}- 26.35 38^{o}- 29 41^{o}- 30.8 38^{o}- 34.8 33^{o}- 37.9	100	89	
43.65 - 48.25	?Vol	6		Chl/clay/carb		100	55	
48.25 - 58.05	Qtz	6-9		Chl/carb		100	84	
58.05 - 61.8	Aplite	4		Chl/carb/Fe		100	92	
EOH 61.8m								

FURTHER DATA & REMARKS

1. Detailed % core recoveries within each depth interval is shown in the core recovery tabulation.
2. R.Q.D. (rock quality designation) $+= \frac{\text{Length Core} > 10 \text{ cm}}{\text{Length Drilled}}$
3. Core size.

GEOLOGY - KING ISLAND SCHEELITE

ASSAY DATA

D.D.H. No. D 020/9

SAMPLE NO.	DEPTH (METRES)				ELEMENTS			COMMENTS
	From	To	Length	Length Rec.	WO_3	Mo		
D 11101	5	6	1.0	1.0	0.03	0.01		
02	6	7	"	"	0.16	0.01		
03	7	8	"	"	0.09	0.01		
04	8	9	"	"	0.08	0.01		
05	9	10	"	"	0.01	<0.01		
06	10	11	"	"	1.22	0.02		
07	11	12	"	"	8.10	0.06		
08	12	13	"	"	0.86	0.01		
09	13	14	"	"	3.60	0.02		
10	14	15	"	"	0.32	0.01		
11	15	16	"	"	0.25	0.01		
12	16	17	"	"	0.88	0.01		
13	17	18	"	"	0.64	0.01		
14	18	19	"	"	1.16	0.01		
15	19	20	"	"	1.04	0.01		
16	20	21	"	"	0.66	0.01		
17	21	22	"	"	0.08	0.01		
18	22	23	"	"	0.49	0.01		
19	23	24	"	"	0.30	0.01		
20	24	25	"	"	0.02	0.02		

SPECIFIC GRAVITY

Depth (metres):

Rock Type:

S.G.:

Determined by:

GEOLOGY - KING ISLAND SCHEELITE

GEOLOGICAL LOG

D.D.H. No. D 020/9

0.0 - 4.85m BIOTITE HORNFELS

Fine to medium grained biotite hornfels with no visible scheelite.

The top 1.0m is broken and fractured, persumably by blasting of the H11 drive.

Bedding or S_1 44^o to LCA at 4.5m

4.85 - 13.55 PYROXENE GARNET HORNFELS

Typical pyroxene garnet hornfels with pods and fragments of marble often replaced by grossular garnet. The unit becomes increasingly mineralised towards the base, particularly from 10m onwards where coarse, and massive scheelite is the norm.

13.55 - 17.25 ANDRADITE SKARN - UPPER C-LENS

Coarse grained andradite garnet skarn with good high grade fine disseminated scheelite present.

Dyke rock (lamprophyre? or aplite?) similar to that present in 020/7, 020/8, 020/6, occurs from 14.0 - 15.8m. This dyke rock is quite fractured and broken with no visible scheelite.

17.25 - ?19.35 MARBLE MARKER - MINERALISED

Possible marble marker consisting of minor marble (17.40 - 17.45m), biotite hornfels, pyroxene hornfels, andradite and grossular garnet. Patchy but disseminated scheelite is present.

The base of the unit may only extend down to 18.28m?

Bedding 65^o to LCA at 17.9m

19.35 - 24.0 LOWER C PYROXENE GROSSULAR ROCK

Disturbed Lower C-lens bedded skarn with abundant, if not dominant, pyroxene - grossular rich rock after associated with faulting.

Diseminated scheelite is present throughout. No obvious fault-breccia zones are present.

24.0 - ?43.65 BIOTITE HORNFELS/PYROXENE HORNFELS

Well bedding sequence of biotite hornfels/pyroxene hornfels with no obvious faults. Minor sulphide occur around 41m.

Bedding	43^o	to	LCA at	26.35m
Bedding	38^o			29m
Bedding	41^o			30.8^o
Bedding	38^o			34.8m
Bedding	33^o			37.9m

GEOLOGY - KING ISLAND SCHEELITE

GEOLOGICAL LOG

D.D.H. No. D 020/9

?43.65 - 48.25 VOLCANICS? - DISTURBED SEDIMENTS

Highly fractured, faulted, brecciated and sheared sequence of volcanics or disturbed sediments. The hangingwall is pyroxene rich. Major faults occur from 44.5 - 45.1m; around 46.0m; around 47m; and48.0 - 48.25m.

No scheelite mineralisation is present.

48.25 - 58.05 SILICIFIED BIOTITE HORNFELS OR QUARTZITE

Fine grained and siliceous biotite hornfels or quartzite with no visible scheelite present.

After each core block, clay, pug and rock fragments are present, indicating cavins from above.

Minor aplite and granitic phases are present.also.

58.05 - 61.80 APLITE/GRANITE

Finer grained more aplite phase, possibly getting coarser grained towards the base.

No scheelite.is present.

EOH 61.80m

GEOLOGY - KING ISLAND SCHEELITE

CHECK ASSAY DATA

D.D.H. No. D 020/9

LAB.	K.I.S.		LAB.	K.I.S. CHECK		LAB.	AMDEL		LAB.	A.C.S.L.		
Original Sample No.	WO_3	Mo	Check Sample No.	WO_3	Mo	Check Sample No.	WO_3	Mo	Check Sample No.	WO_3	Mo	
11108	0.86	0.01	12021	0.80		12022	1.03		12023	0.95		
11119	0.30	0.01	12024	0.3		12025	0.38		12026	0.38		

GEOLOGY - KING ISLAND SCHEELITE

LOG OF D.D.H. No. D 020/8

PLANNING

PROPOSER: G. J. Bujtor DEPTH:

LOCATION: H11 off I12

PURPOSE OF HOLE: To define Southern Area on Section

PROPOSED CO-ORDS: 220020 E 564010 N

INCLINATION: -33

BEARING: 180 °GRID °MAG

TARGET: E N

DEPTH:

CHECKED BY: DATE:

SURVEY

SURVEY CO-ORDS: E N

SURVEYED BEARING: 180° 06' °GRID °MAG

SURVEYED IN BY: DATE:

ACTUAL CO-ORDS: 220020.98 E 564010.3 N

R.L. OF COLLAR: R-167.6

INCLINATION OF HOLE: -32° 20'

PICKED UP BY: R. Howman DATE: 17/5/79

SUMMARY

LOGGED BY: G. J. Bujtor

RESULTS: 84m - 93m 9m @ 1.62% WO_3 C' Lens South?

DRILLING

DATE COMMENCED: 15/5/79 DATE TERMINATED: 25/5/79

DRILLER/CONTRACTOR: A.D.D

CASING: SIZE:
DEPTH:

CORE: SIZE: 46TT
DEPTH: 141m

WEDGE PLACED: Nil DEPTH: PROPOSER:

EXTENSION: Nil

FINAL DEPTH: 141m

REASON FOR TERMINATION:

CONDITION OF HOLE ON COMPLETION:

CASING:

CEMENTED:

BORE HOLE SURVEY: Multishot

WATER:

COMMENTS ON DRILLING CONDITIONS: Good

GEOLOGY - KING ISLAND SCHEELITE

SUMMARY BORE HOLE SURVEY DATA

D.D.H. No. D 020/8

Surveyed method: Multishot
Final depth: 141.40m
Casing depth: -

Depth surveyed to: 141.40
Date surveyed: 25/5/79
Surveyed by: L. Denby
Checked by:

Bearing			Inclination		True Vertical Depth (m)	Co-ordinates	
Depth (m)	Grid	Mag.	Read	Corr.		S	E
22.00	180°	170°	57° 15'	-32° 45'	11.90	18.22	3.21
34.00	181	171	57 15	-32 45	18.39	28.19	4.79
46.00	181	171	57	-33	24.93	38.13	6.36
52.00	181	171	57 15	-32 45	28.18	43.12	7.15
67.00	181 30'	171 30'	57 45	-32 15	36.18	55.67	9.03
88.00	182	172	56 15	-33 45	47.85	72.96	11.46
103.00	181	171	56 45	-33 15	56.07	85.35	13.42
121.00	182	172	56 45	-33 15	65.94	100.25	15.51
141.40	181	171	56	-34	77.35	116.95	18.15

REMARKS:

GEOLOGY - KING ISLAND SCHEELITE

CORE RECOVERY

D.D.H. No. D 020/8

INTERVAL (m)	LENGTH (m)	LENGTH RECOVERED (m)	% CORE RECOVERY
0.00 - 2.8	2.8	2.8	100
2.8 - 5.9	3.1	3.1	100
5.9 - 8.9	3.0	3.0	100
8.9 - 11.9	3.0	3.0	100
11.9 - 14.9	3.0	3.0	100
14.9 - 17.9	3.0	3.0	100 broken
17.9 - 20.9	3.0	3.0	100
20.9 - 23.9	3.0	3.0	100
23.9 - 26.9	3.0	3.0	100
26.9 - 29.9	3.0	3.0	100 broken
29.9 - 32.8	2.9	2.9	100
32.8 - 35.8	3.0	3.0	100
35.8 - 38.7	2.9	2.9	100
38.7 - 41.6	2.9	2.9	100
41.6 - 43.9	2.3	2.3	100
43.9 - 46.9	3.0	3.0	100
46.9 - 49.9	3.0	3.0	100
49.9 - 52.9	3.0	3.0	100
52.9 - 55.9	3.0	3.0	100
55.9 - 59.0	3.1	3.1	100
59.0 - 62.0	3.0	3.0	100
62.0 - 65.0	3.0	3.0	100
65.0 - 68.0	3.0	3.0	100
68.0 - 71.0	3.0	3.0	100
71.0 - 73.9	2.9	2.9	100
73.9 - 76.2	2.3	2.3	100
76.2 - 79.2	3.0	3.0	100
79.2 - 82.2	3.0	3.0	100
82.2 - 85.2	3.0	3.0	100
85.2 - 88.2	3.0	3.0	100
86.2 - 91.2	3.0	3.0	100
91.2 - 94.2	3.0	3.0	100
94.2 - 97.2	3.0	3.0	100
97.2 - 100.2	3.0	3.0	100
100.2 - 103.2	3.0	3.0	100
103.2 - 106.2	3.0	3.0	100
106.2 - 109.2	3.0	3.0	100
109.2 - 112.1	2.9	2.9	100
112.1 - 115.1	3.0	3.0	100
115.1 - 118.1	3.0	3.0	100
118.1 - 121.1	3.0	3.0	100
121.1 - 123.4	2.3	2.3	100
123.4 - 126.4	3.0	3.0	100
126.4 - 129.4	3.0	3.0	100
129.4 - 132.4	3.0	3.0	100
132.4 - 135.4	3.0	3.0	100
135.4 - 138.4	3.0	3.0	100
138.4 - 141.4	3.0	3.0	100
EOH 141.4m			

GEOLOGY - KING ISLAND SCHEELITE

SUMMARY STRUCTURAL DATA

D.D.H. No. D 020/8

DEPTH INTERVAL (METRES)	ROCK TYPE	FRAC-TURES /m	JOINT ANGLE (WRT/ LAOC)	JOINT FILLING	BEDDING ANGLE (W. R. T./ L. A.O.C.)	% CORE RECO-VERY	R. Q. D.	REMARKS (WEATHERING)
0.00 - 6.55m	Bh	10-12		Chl/carb/sulph		100	47	
6.55 - 20.0	Ch/bh	4-15		Chl/clay/carb/sulph	41°- 8.2m 25°-16.3m	100	57	
20.00 - 35.05	Bh/vol	7-12		Chl/sulph/carb/clay	27°-35.3	100	69	
35.05 - 44.85	B lens	3-7		Chl/clay	0°-41.0 17°-43.0 44°-44.3	100	88	
44.85 - 54.0	Bh	6		Chl/sulph/carb	35°-49.4	100	89	
54.0 - 60.8	Ch/Aplite	4-8		Chl/sulph/carb/clay	45°-56 47°-60	100	75	
60.8 - 63.3	Bh	5		Chl/carb		100	90	
63.3 - 66.92	Granite	6-7		Chl/carb		100	77	
66.92 - 72.25	B lens	5-8		Carb/clay/chl		100	79	
72.25 - 85.15	Bh/Vol	3-4		Chl/carb/sulph/Qtz		100	97	
85.15 - 91.9	?Endo-Skarn			Carb/sulph/qtz/chl		100	94	
91.9 - 93.8	Gh/Bh	6		Chl/carb/sulph		100	75	

FURTHER DATA & REMARKS

1. Detailed % core recoveries within each depth interval is shown in the core recovery tabulation.
2. R.Q.D. (rock quality designation) $+= \frac{\text{Length Core} > 10 \text{ cm}}{\text{Length Drilled}}$
3. Core size.

GEOLOGY - KING ISLAND SCHEELITE

SUMMARY STRUCTURAL DATA

D.D.H. No. D 022/8

DEPTH INTERVAL (METRES)	ROCK TYPE	FRAC-TURES /m	JOINT ANGLE (WRT/ LAOC)	JOINT FILLING	BEDDING ANGLE (W. R. T./ L. A.O.C.)	% CORE RECO-VERY	R. Q. D.	REMARKS (WEATHERING)
93.8 - 99.65	Ch	8-10		Chl/carb	42^{o}-96	100	48	
99.65 - 106.4	Pgh	4-8		Chl/carb/clay		100	90	
106.4 - 136.75	Bh	6-10		Chl/sulph/carb		100	74	
136.75 - 141.4	Granite	4		Carb/Fe			90	
EOH 141.4m								

FURTHER DATA & REMARKS

1. Detailed % core recoveries within each depth interval is shown in the core recovery tabulation.
2. R.Q.D. (rock quality designation) $+= \frac{\text{Length Core} > 10 \text{ cm}}{\text{Length Drilled}}$
3. Core size.

GEOLOGY - KING ISLAND SCHEELITE

ASSAY DATA

D.D.H. No. D 020/8

SAMPLE NO.	DEPTH (METRES)				ELEMENTS			COMMENTS
	From	To	Length	Length Rec.	WO_3	Mo		
D 11083	6	7	1.0	1.0	0.10	0.01		
84	7	8	"	"	0.08	0.01		
85	8	9	"	"	<0.01	<0.01		
86	9	10	"	"	<0.01	0.01		
87	10	11	"	"	<0.01	0.01		
88	11	12	"	"	<0.01	0.02		
89	12	13	"	"	0.10	0.01		
90	13	14	"	"	0.22	0.01		
91	14	15	"	"	0.90	0.02		
92	15	16	"	"	0.04	0.01		
93	16	17	"	"	0.16	0.01		
94	17	18	"	"	0.66	0.02		
95	18	19	"	"	<0.01	0.01		
96	19	20	"	"	0.28	0.01		
97	20	21	"	"	0.01	0.01		
98	32	33	"	"	<0.01	0.01		
99	33	34	"	"	0.07	0.01		
11100	34	35	"	"	<0.01	0.01		
51	35	36	"	"	<0.01	<0.01		
52	36	37	"	"	0.58	0.01		
53	37	38	"	"	0.03	0.01		
54	38	39	"	"	0.78	0.02		
55	39	40	"	"	<0.01	<0.01		
56	40	41	"	"	<0.01	<0.01		
57	41	42	"	"	0.05	0.01		
58	42	43	"	"	0.12	0.01		
59	43	44	"	"	0.01	<0.01		
60	44	45	"	"	0.17	0.01		
61	45	46	"	"	<0.01	<0.01		
62	46	47	"	"	0.13	0.01		
63	47	48	"	"	<0.01	0.01		
64	53	54	"	"	0.08	0.01		
65	54	55	"	"	1.00	0.02		
66	55	56	"	"	<0.01	0.01		
67	56	57	"	"	0.07	0.01		
68	57	58	"	"	<0.01	<0.01		
69	58	59	"	"	<0.01	<0.01		
70	59	60	"	"	<0.01	0.01		
71	60	61	"	"	0.05	0.01		
72	61	62	"	"	<0.01	0.01		
73	62	63	"	"	<0.01	<0.01		
74	67	68	"	"	<0.01	<0.01		
75	68	69	"	"	<0.01	0.01		
76	69	70	"	"	0.16	<0.01		
77	70	71	"	"	0.87	0.01		
78	71	72	"	"	0.04	<0.01		

SPECIFIC GRAVITY

Depth (metres):

Rock Type:

S.G.:

Determined by:

GEOLOGY - KING ISLAND SCHEELITE

ASSAY DATA

D.D.H. No. D 020/8

SAMPLE NO.	DEPTH (METRES)				ELEMENTS			COMMENTS
	From	To	Length	Length Rec.	WO_3	Mo		
D 11179	72	73	1.0	1.0	0.75	0.01		
80	73	74	"	"	0.06	0.01		
81	79	80	"	"	0.01	0.01		
82	80	81	"	"	0.16	0.02		
83	81	82	"	"	0.13	0.01		
84	82	83	"	"	0.14	0.01		
85	83	84	"	"	0.06	0.01		
86	84	85	"	"	1.08	0.01		
87	85	86	"	"	1.55	0.01		
88	86	87	"	"	1.77	0.01		
89	87	88	"	"	1.36	0.01		
90	88	89	"	"	1.82	0.01		
91	89	90	"	"	0.89	0.01		
92	90	91	"	"	2.27	0.01		
93	91	92	"	"	1.81	0.01		
94	92	93	"	"	2.02	0.02		
95	93	94	"	"	0.12	0.01		
96	94	95	"	"	0.12	0.01		
97	95	96	"	"	<0.01	0.01		
98	96	97	"	"	<0.01	<0.01		
99	97	98	"	"	<0.01	<0.01		
11200	98	99	"	"	<0.01	<0.01		
01	99	100	"	"	<0.01	0.01		
02	100	101	"	"	0.02	0.01		
03	101	102	"	"	0.34	0.01		
04	102	103	"	"	0.24	0.01		
05	103	104	"	"	0.08	0.01		
06	104	105	"	"	0.08	0.01		
07	105	106	"	"	0.01	0.01		
08	106	107	"	"	<0.01	<0.01		
09	107	108	"	"	<0.01	<0.01		

SPECIFIC GRAVITY

Depth (metres):

Rock Type:

S.G.:

Determined by:

GEOLOGY - KING ISLAND SCHEELITE

GEOLOGICAL LOG

D.D.H. No. D 02078

0.0 - 6.55m BIOTITE HORNFELS

Fine grained dark brown coloured biotite hornfels with minor green pyroxene hornfels alteration bands. Chlorite coated, slickenside joints and fractures are common. No scheelite is present.

6.55 - 9.00 B-LENS MARBLE

Grey coloured, poorly mineralised B-lens marble with minor pyroxene, grossular and andradite at the hangingwall contact with biotite hornfels above.

Clay-carbonate along joints and fractures is common. Some clay-carbonate faults (ie at 7.35m) could also be present.

Bedding 41^{o} to LCA at 8.2m

9.00 - 12.20 LAMPROPHYRE DYKES

Light grey coloured lamprophyre dykes occuring at 9.0 - 10.0m and 11.15 - 11.50m. The remainder of the unit could be altered lamprophyre, or most probably altered pyroxene/biotite hornfels. A volcanic - tuffite like unit cannot be excluded.

12.20 - 15.10 B-LENS

Dominantly weathered and altered B-lens marble with also abundant pyroxene-garnet alternation zones carrying minor scheelite.

Numerous faults could well be present particularly around 12.6m, 13.90 - 14.0m (clay, breccia, slickensides, chlorite) and 15.10m (base of unit).

15.10 - 16.90 BIOTITE HORNFELS - DISTURBED

Sheared disturbed and broken biotite hornfels with abundant slickensided, chlorite coated joints and fractures. No visible scheelite is present.

The core has a somewhat schistose-like texture.

S_1 25^{o} to LCA at 16.3m

Contact with marble below appears to be stratigraphic.

16.90 - 20.00 B-LENS MARBLE

Greyish coloured marble with minor pyroxene hornfels and scheelite mineralisation. No bedding appears visible

GEOLOGY - KING ISLAND SCHEELITE

GEOLOGICAL LOG

D.D.H. No. D 020/8

20.00 - 35.05m VOLCANICS(?) or SHEARED BIOTITE HORNFELS

Medium to coarse grained, sheared schistose-like textured biotite hornfels or volcanics with abundant fine pyrite. The top of the unit from 20.00 - 26.60m appears to be coarsest and is not too dissimilar to volcanics. The remainder of the unit from 26.6 - 35.05 appears to be sheared biotite hornfels with minor marble and skarn units (ie 28.7 - 29.0 - andradite skarn with pyroxene and grossular; 32.95 - 33.5m - marble and grossular with faulted lower contact).

Slickensided, chlorite joints and fractures are common throughout. The most obvious broken zones occur from 20.9 - 21.4, 27.5 - 28.4m, 30.7 - 31.0m.

35.05 - 44.85 B-LENS MARBLE

Bedded, grey coloured, poorly mineralised B-lens marble, with bedding generally at low angles to long core axis.

Volcanics, or biotite honrfels(?) occurs from 37.2 - 37.6m and 37.75 - 37.95m. The extremely chloritic core at 38.3 - 38.35m could well be a fault zone.

Some expanding clay filled joints and fractures are present ie 43.35m.

Minor skarn is developed from 36.45 - 37.2m and 38.4 - 38.7m.

Bedding	27^{o}	to	LCA at	35.3m
Bedding	0^{o}			41.0m
Bedding	17^{o}			43.0m
Bedding	44^{o}			44.3m

44.85 - 54.00 BIOTITE HORNFELS

Fine grained biotite hornfels with numerous pyroxene hornfels/ grossular alteration zones and patches.

A probable fault with clay, breccia, slickensides occurs at the base of the unit around 53.9m where broken core is common.

Bedding $33\text{-}38^{o}$ to LCA at 49.4m

54.00 - 60.80 B LENS MARBLE

Grey to whitish coloured B-lens marble with sparse scheelite present. Bedding is rather poorly developed. Minor skarn occurs at the hangingwall and footwall of the unit.

A fine grained aplite dyke occurs from 56.8 - 58.15m.

Bedding	45^{o}	to	LCA at	56.0m
Bedding	47^{o}			60.0m

GEOLOGY - KING ISLAND SCHEELITE

GEOLOGICAL LOG

D.D.H. No. D 020/8

60.80 - 63.30 BIOTITE HORNFELS

Fine grained biotite hornfels with minor pyroxene-grossular alteration zones and patches. Rare scheelite is present. (Portions of the unit resemble volcanics?).

63.30 - 66.92 GRANITE/APLITE

A coarse grained, porphyritic granite-aplite vein with no visible scheelite present. Unit is porphyritic in feldspars.

66.92 - 72.25 B-LENS MARBLE

Grey coloured marbles with minor skarn developed in places (69.9 - 70.94m, 72.0 - 72.25m). A unit of biotite hornfels occurs from 70.95 - 71.45m and may well represent a very chloritic and sheared fault zone. Weathered clay along joints and fractures is common.

Bedding is difficult to determine.

72.25 - 85.15 BIOTITE - PYROXENE HORNFELS with minor grossular garnet

Disturbed, greenish to black coloured, fine to medium grained pyroxene - biotite hornfels. The hornfels in places resembles volcanics (see later). Greenish pyroxene - ?actinolite alteration bands are often tortuous.

Grossular garnet is developed in places, and at 82.6 - 83.0m the unit somewhat resembles pyroxene garnet hornfels (though it isn't). Minor scheelite is present.

An aplite/granite dyke with quartz veining occurs from 75.15 - 76.35m. Quartz veining with minor carbonate and coarse scheelite occurs from 79.45 - 79.6m, 80.15 - 80.35m and 80.5 - 80.7m.

Towards the base of the unit increasing veins of chalcopyrite and pyrrhotite are present.

Bedding between 80.81m is at 45^{o} - 55^{o} to LCA, and is only 1 of 2 portions of the unit that can be definitely called biotite hornfels. The other occurs from 83.4 - 83.65m. The remainder of the unit could be volcanics(?).

Carbonate veining of joints and fractures is common.

GEOLOGY - KING ISLAND SCHEELITE

GEOLOGICAL LOG

D.D.H. No. D 020/8

85.15 - 88.70 SCHEELITE - PYRRHOTITE - QUARTZ - PYROXENE ROCK - ?ENDOSKARN

Distinctive rock unit consisting of scheelite - 2 to 3% (blue fluorescing variety, mainly); pyrrhotite - 30-40%; quartz 40% and variable amounts of pyroxene (20%) and chalcopyrite (0.5%).

The unit could be intrusive with hangingwall and footwall contacts at some 50% to LCA. Scheelite contact is estimated to be 1.5% WO_3, and is present as very fine disseminations.

88.70 - 89.55 BIOTITE HORNFELS

Fine grained grey coloured biotite hornfels with no visible scheelite.

89.55 - 91.90 SCHEELITE - PYRRHOTITE - QUARTZ - PYROXENE ROCK - ?ENDOSKARN

Unit similar to that occurring from 85.15 - 88.70m above.

91.90 - 95.80 SKARN WITH BIOTITE HORNFELS

Andradite skarn with minor grossular garnet, and abundant brown coloured biotite hornfels. Minor scheelite is present in the skarn (dominantly yellow floorescing).

Disturband and fracturing of the core around 95.25m suggests the presence of a fault. The presence of other faults cannot be excluded.

95.80 - 99.65 MARBLE

Virtually barren grey coloured marble with rare bedding developed -

Bedding 42° to LCA at 96.0m

The hangingwall contact is approx. 48° to LCA. Footwall contact is about 75° to LCA.

99.65 - 106.4 PYROXENE GARNET HORNFELS(?)

A pyroxene garnet hornfels like rock with fragments and massés of marble in a matrix of pyroxene hornfels. Grossular garnet reaction rims are present.

The unit could also represent a pyroxene-grossular rock adjacent to a major fault. Presumably, the marble fragments being derived from the marble above.

Scheelite mineralisation is coarse and medium-high grade at the top of the unit decreasing to low grade towards the base.

Some slickensided and chlorite coated joints are present. ie around 101.7m. A zone of dark brown biotite hornfels occurs at the top of the unit from 99.65 - 100.05m.

GEOLOGY - KING ISLAND SCHEELITE

GEOLOGICAL LOG

D.D.H. No. D 020/8

106.4 - 136.75m BIOTITE HORNFELS

Dark brown to black coloured, fine to medium grained biotite hornfels with numerous thin aplite dykes, and carbonate veins throughout. From 111.3 - (?)115m, the unit is slightly greenish and in places resembles a volcanic rock (?).

Broken and fractured core occurs from 110.2 - 110.5m (some carbonate veining); 117.3 - 117.8m (broken); 127.95 - 130.5m (FAULT) - oxidised, open carbonate lined cavities); 130 - 132 (FAULT - numerous breccia zones throughout with carbonate veining and open vughs and cavities); 134.45 - 134.55m (FAULT - breccia and carbonate);

A granitic dyke with mafic minerals and epidote occurs from 133.85 - 134.18m

No scheelite mineralisation is present.

The contact with intrusive granite below is sheared, and brecciated (rehealed) with carbonate veining.

136.75 - 141.40 GRANITE/ADAMELLITE

Coarse grained, porphyriteic (in K-feldspars) granite/adamellite with no visible scheelite.

EOH 141.40m

GEOLOGY - KING ISLAND SCHEELITE

LOG OF D.D.H. No. D 020/7

PLANNING

PROPOSER: G. J. Bujtor DEPTH:

LOCATION: H11 off I12 Pit Dag Access

PURPOSE OF HOLE: To Define Southern Area on Section

PROPOSED CO-ORDS: 220020 E 564010 N

INCLINATION: -43o

BEARING: 180° °GRID °MAG

TARGET: E N

DEPTH:

CHECKED BY: DATE:

SURVEY

SURVEY CO-ORDS: E N

SURVEYED BEARING: 180°00' °GRID °MAG

SURVEYED IN BY: DATE:

ACTUAL CO-ORDS: 220020.97 E 564010.30 N

R.L. OF COLLAR: R-167.9

INCLINATION OF HOLE: -41°10'

PICKED UP BY: R. Howman DATE: 17/5/79

SUMMARY

LOGGED BY: G J. Bujtor

RESULTS: 16-20m 4m @ 0.73% WO_3 B lens

DRILLING

DATE COMMENCED: 8.5.79 DATE TERMINATED: 15.5.79

DRILLER/CONTRACTOR:

CASING: SIZE:
DEPTH:

CORE: SIZE: 46TT
DEPTH: 113.3

WEDGE PLACED: DEPTH: PROPOSER:

EXTENSION:

FINAL DEPTH: 113.3m

REASON FOR TERMINATION: Intersected basement granite

CONDITION OF HOLE ON COMPLETION:

CASING:

CEMENTED:

BORE HOLE SURVEY:

WATER:

COMMENTS ON DRILLING CONDITIONS:

GEOLOGY - KING ISLAND SCHEELITE

CORE RECOVERY

D.D.H. No. D 020/7

INTERVAL (m)	LENGTH (m)	LENGTH RECOVERED (m)	% CORE RECOVERY
0.0 - 2.3	2.3	2.3	100
2.3 - 5.3	3.0	3.0	100
5.3 - 5.5	0.2	0.2	100
5.5 - 8.9	3.4	3.4	100
8.9 - 11.9	3.0	3.0	100
11.9 - 14.9	3.0	3.0	100
14.9 - 17.9	3.0	3.0	100
17.9 - 20.9	3.0	3.0	100
20.9 - 23.9	3.0	3.0	100
23.9 - 26.9	3.0	3.0	100
26.9 - 29.9	3.0	3.0	100
29.9 - 32.9	3.0	3.0	100
32.9 - 35.9	3.0	3.0	100
35.9 - 38.9	3.0	3.0	100
38.9 - 41.4	3.0	3.0	100
41.9 - 44.9	3.0	3.0	100
44.9 - 47.9	3.0	3.0	100
47.9 - 50.9	3.0	3.0	100
50.9 - 53.9	3.0	3.0	100
53.9 - 56.9	3.0	3.0	100
56.9 - 59.9	3.0	3.0	100
59.9 - 62.9	3.0	3.0	100
63.9 - 65.9	3.0	3.0	100
65.9 - 68.9	3.0	3.0	100
68.9 - 71.9	3.0	3.0	100
71.9 - 75.1	3.2	3.2	100
75.1 - 77.9	2.8	2.8	100
77.9 - 80.9	3.0	3.0	100
80.9 - 83.3	2.4	2.4	100
83.3 - 86.3	3.0	3.0	100
86.3 - 89.3	3.0	3.0	100
89.3 - 92.3	3.0	3.0	100
92.3 - 95.3	3.0	3.0	100
95.3 - 98.3	3.0	3.0	100
98.3 - 101.3	3.0	3.0	100
101.3 - 104.3	3.0	3.0	100
104.3 - 107.3	3.0	3.0	100
197.3 - 110.3	3.0	3.0	100
110.3 - 113.3	3.0	3.0	100
EOH 113.3m			

GEOLOGY - KING ISLAND SCHEELITE

SUMMARY STRUCTURAL DATA

D.D.H. No. D 020/7

DEPTH INTERVAL (METRES)	ROCK TYPE	FRACTURES /m	JOINT ANGLE (WRT/ LAOC)	JOINT FILLING	BEDDING ANGLE (W.R.T./ L.A.O.C.)	% CORE RECOVERY	R.Q.D.	REMARKS (WEATHERING)
0.0 - 6.85	bh	6-14		Chl/carb/sulph		100	45	
6.85 - 23.3	B-lens	5-6		chl/clay/carb/Qtz	35°: 20m 22°: 21.8m	100	86	
23.3 - 33.55	bh	5-6		Chl/sulph/Qtz		100	82	
33.55 - 43.25	Vol(?)	8		Chl/carb/clay/sulph		100	53	
43.25 - 62.15	bh	4-6		Chl/sulph/carb	35°: 56.8m 46°: 62.15m	100	84	
62.15 - 73.50	bh/ph granite	2-5		Chl/clay/carb/sulph	20°: 66.5m 24°: 69.8m	100	96	
73.5 - 98.3	bph	4-8		Chl/carb/Qtz/sulph	45°: 76.2m 20°: 81.5m 25°: 92m 25°: 95.4	100	92	
98.3 - 106.9	bph	8		Chl/sulph/carb		100	78	
106.9 - 113.3	Granite	6		Fe/sulph		100	82	
EOH 113.3m								

FURTHER DATA & REMARKS

1. Detailed % core recoveries within each depth interval is shown in the core recovery tabulation.
2. R.Q.D. (rock quality designation) $+= \frac{\text{Length Core} > 10 \text{ cm}}{\text{Length Drilled}}$
3. Core size. 46TT

GEOLOGY - KING ISLAND SCHEELITE

ASSAY DATA

D.D.H. No. D 020/7

SAMPLE NO.	DEPTH (METRES)				ELEMENTS			COMMENTS
	From	To	Length	Length Rec.	WO_3	Mo		
D 11031	5	6	1.0	1.0	0.03	0.01		
32	6	7	"	"	0.08	0.01		
33	7	8	"	"	0.78	0.01		
34	8	9	"	"	0.13	0.01		
35	9	10	"	"	<0.01	0.01		
36	10	11	"	"	0.05	<0.01		
37	11	12	"	"	<0.01	<0.01		
38	12	13	"	"	<0.01	<0.01		
39	13	14	"	"	<0.01	<0.01		
40	14	15	"	"	<0.01	<0.01		
41	15	16	"	"	<0.01	<0.01		
42	16	17	"	"	0.68	0.01		
43	17	18	"	"	0.41	<0.01		
44	18	19	"	"	1.34	0.03		
45	19	20	"	"	0.48	<0.01		
46	20	21	"	"	<0.01	<0.01		
47	21	22	"	"	<0.01	<0.01		
48	22	23	"	"	<0.01	<0.01		
49	23	24	"	"	0.32	0.01		
50	24	25	"	"	<0.01	<0.01		
51	62	63	"	"	<0.01	<0.01		
52	63	64	"	"	0.30	<0.01		
53	64	65	"	"	<0.01	<0.01		
54	65	66	"	"	<0.01	<0.01		
79	86	87	"	"	0.05	<0.01		
80	87	88	"	"	0.20	0.01		
81	88	89	"	"	0.41	<0.01		
82	89	90	"	"	<0.01	<0.01		

SPECIFIC GRAVITY

Depth (metres):

Rock Type:

S.G.:

Determined by:

GEOLOGY - KING ISLAND SCHEELITE

GEOLOGICAL LOG

D.D.H. No. D020/7

0.0 - 6.80 BIOTITE HORNFELS

Fine grained, brown coloured biotite hornfels with abundant pyroxene hornfels(?) from 0.0 - 3.3m. No scheelite mineralisation is present.

The top 1m of the core is fractured and broken. Some broken core also occurs between 3.3 - 4.5m.

Contact with B-lens below appears to be stratigraphic.

A lamprophyre dyke occurs from 4.5 - 5.0m.

6.80 - 23.3 . B-LENS

Typical B-lens consisting of dominantly grey marbles with minor patches of pyroxene hornfels, grossular and lesser amounts of andradite garnet. The hangingwall and footwall contact with biotite hornfels is skarnetised (on the marble side). Scheelite mineralisation occurs associated with the garnets (ie 6.85 - 8.7m; 16.15 - 19.4m (high grade); and 23.0 - 23.3m).

A lamprophyre dyke occurs from 8.7 - 9.85m. Marble below this dyke is highly weathered and altered with abundant clay filled fractured and joints. This portion of the unit from 9.85 - 12.5m is whitish to greenish in colour.

Broken and fractured core (possible faults) occurs from 15.8 - 16.1m. The core appears to be clayey and brecciated.

Bedding	35^{o}	to	LCA	at 20.0m
Bedding	22^{o}			21.8m

23.3 - 33.55 BIOTITE HORNFELS

Fine to medium grained dark brown coloured biotite hornfels with no visible scheelite. Minor pyroxene hornfels and quartz veins are present.

33.55 - 43.25 VOLCANICS(?)

Grey coloured and spotted rocks which resemble volcanics. Pyroxene hornfels and chlorite are common. No scheelite mineralisation is visible. The upper contact has a few slickensides and could be fault(?).

A sheared and brecciated fault zone (5cm) occurs at 36.6m. Numerous other sheared zones are also present. The core is places has a schistose texture.

Note: The core from 0.9 - 3.3m resembles this unit but is more pyroxene rich.

GEOLOGY - KING ISLAND SCHEELITE

GEOLOGICAL LOG

D.D.H. No. D 020/7

43.25 - 62.15 BIOTITE HORNFELS

Fine grained dark brown coloured biotite hornfels with some pyroxene hornfels alternation zones and patches.. No scheelite is present. A granite - dyke occurs form 58.95 - 60.05m.

Bedding	35°	to	LCA	at 56.8m
Bedding	46°			62.15

62.15 - 65.20 MARBLE/GROSSULAR/PYROXENE HORNFELS

Intermixed and disturbed unit of Marble, pyroxene hornfels and grossular with some scheelite present. Portions of the core looks like pyroxene garnet hornfels, other portion like the pyroxene - grossular rich rock assoicated with faults. Position within the stratigraphic sequence is unknown.

65.20 - 70.00 BIOTITE HORNFELS/PYROXENE HORNFELS

Well bedded, fine grained sequence of biotite hornfels/pyroxene hornfels with evidence of sediment mobility and disturbance.

Bedding	20°	to	LCA	at 66.5m
Bedding	24°			69.8

70.00 - 73.50 GRANITE

Coarse grained porphyritic (in large pink coloured K-feldspars) granite with no visible scheelite present.

73.50 - 106.90 BIOTITE - PYROXENE HORNFELS/BANDED FOOTWALL BEDS

Well bedded sequence of dominantly biotite pyroxene hornfels with numerous interbeds of marble and grossular garnet. (particularly from 70.5 - 90.0m).

Scheelite is rare, but minor mineralisation is present from 86.0 - 89.0m

Numerous granite/aplite dykes are present. Joints and fractures are extremely schoritic from 98m onwards.

Bedding	33°	to	LCA	at 74.75m
Bedding	45°			76.2m
Bedding	13°			80.6m
Bedding	20°			81.15
Bedding	43°			86.4m
Bedding	25°			95m
Bedding	25°			95.4m

GEOLOGY - KING ISLAND SCHEELITE

GEOLOGICAL LOG

D.D.H. No. D 020/1

106.90 - 113.30 GRANITE/ADAMELLITE

Coarse grained granite/adamellite with no visible scheelite. Large phenocrysts of feldspar are common.

EOH 113.30m

GEOLOGY - KING ISLAND SCHEELITE

CHECK ASSAY DATA

D.D.H. No. D 020/7

LAB.	K.I.S.		LAB.	K.I.S. CHECK		LAB.	AMDEL		LAB.	A.C.S.L.		
Original Sample No.	WO_3	Mo	Check Sample No.	WO_3	Mo	Check Sample No.	WO_3	Mo	Check Sample No.	WO_3	Mo	
11042	0.68	0.01	12000	0.73		12001	0.98		12002	0.93		
11052	0.30	<0.01	12003	0.28		12004	0.32		12005	0.34		

GEOLOGY - KING ISLAND SCHEELITE

LOG OF D.D.H. No. D 020/6

PLANNING

PROPOSER: G. J. Bujtor DEPTH:

LOCATION: H11 off I12 Pit Dag Access -170mRL

PURPOSE OF HOLE: To Define Southern Orebody

PROPOSED CO-ORDS: 220020 E 564010 N

INCLINATION: -62^{o}

BEARING: 180^{o} ^{o}GRID ^{o}MAG

TARGET: E N

DEPTH:

CHECKED BY: DATE:

SURVEY

SURVEY CO-ORDS: E N

SURVEYED BEARING: 182^{o} $17^{\bullet}$GRID ^{o}MAG

SURVEYED IN BY: DATE:

ACTUAL CO-ORDS: 220020.9 E 564011.1 N

R.L. OF COLLAR: -167.87

INCLINATION OF HOLE: -60^{o} 04'

PICKED UP BY: W. Davies DATE: 4/5/79

SUMMARY

LOGGED BY: G. J. Bujtor

RESULTS: 13.22m 9m @ 1.90% WO_3
29-36m 7m @ 0.60% WO_3

DRILLING

DATE COMMENCED: 26/4/79 DATE TERMINATED: 7/5/79

DRILLER/CONTRACTOR: ADD

CASING: SIZE:
DEPTH:

CORE: SIZE: 46TT
DEPTH: 88.6m

WEDGE PLACED: DEPTH: PROPOSER:

EXTENSION:

FINAL DEPTH: 88.6m

REASON FOR TERMINATION:

CONDITION OF HOLE ON COMPLETION:

CASING:

CEMENTED:

BORE HOLE SURVEY: Surveyed at 34.6m & 64.6m

WATER:

COMMENTS ON DRILLING CONDITIONS:

GEOLOGY - KING ISLAND SCHEELITE

SUMMARY BORE HOLE SURVEY DATA

D.D.H. No. D 020/6

Surveyed method: Single shot
Final depth: 88.60m
Casing depth:

Depth surveyed to: 64.60m
Date surveyed: 7/5/79
Surveyed by: L. Denby
Checked by:

Bearing			Inclination		True Vertical Depth (m)	Co-ordinates	
Depth (m)	Grid	Mag.	Read	Corr.		S	E
0					0	0	0
34.6	182	172	29.5	-60.5°	30.12	16.87	2.37
64.6	184	174	29.25	-60.75°	56.30	31.45	3.90

REMARKS:

GEOLOGY - KING ISLAND SCHEELITE

CORE RECOVERY

D.D.H. No. D 020/6

INTERVAL (m)	LENGTH (m)	LENGTH RECOVERED (m)	% CORE RECOVERY
0.0 - 2.6	2.6	2.6	100
2.6 - 5.2	2.6	2.6	100
5.2 - 6.6	1.4	1.4	100
6.6 - 8.2	1.6	1.6	100
8.2 - 11.0	2.8	2.8	100
11.0 - 13.8	2.8	2.8	100
13.8 - 16.7	2.9	2.9	100
16.7 - 19.5	2.8	2.8	100
19.5 - 20.0	0.5	0.5	100
20.0 - 22.6	2.6	2.6	100
22.6 - 25.6	3.0	3.0	100
25.6 - 28.6	3.0	3.0	100
28.6 - 31.6	3.0	3.0	100
31.6 - 34.6	3.0	3.0	100
34.6 - 37.6	3.0	3.0	100
37.6 - 40.6	3.0	3.0	100
40.6 - 43.6	3.0	3.0	100
43.6 - 46.6	3.0	3.0	100
46.6 - 48.5	1.9	1.9	100 broken
48.5 - 49.6	1.1	1.1	100 "
49.6 - 52.6	3.0	3.0	100 "
52.6 - 55.6	3.0	3.0	100
55.6 - 57.6	2.0	2.0	100
57.6 - 58.6	1.0	1.0	100
58.6 - 61.6	3.0	3.0	100
61.6 - 64.6	3.0	3.0	100 broken/clay
64.6 - 67.6	3.0	3.0	100
67.6 - 70.4	2.8	2.8	100
70.4 - 73.0	2.6	2.6	100
73.0 - 75.6	2.6	2.6	100
75.6 - 78.6	3.0	3.0	100
78.6 - 81.4	2.8	2.8	100
81.4 - 82.6	1.2	1.2	100
82.6 - 84.6	2.0	2.0	100
84.6 - 87.0	2.4	2.4	100
87.0 - 88.6	1.6	1.6	100
EOH 88.6m			

GEOLOGY - KING ISLAND SCHEELITE

SUMMARY STRUCTURAL DATA

D.D.H. No. D 020/6

DEPTH INTERVAL (METRES)	ROCK TYPE	FRAC-TURES /m	JOINT ANGLE (WRT/ LAOC)	JOINT FILLING	BEDDING ANGLE (W. R. T./ L. A.O.C.)	% CORE RECO-VERY	R. Q. D.	REMARKS (WEATHERING)
0.0 - 8.1m	bh	8		Chl/clay/carb/sulph	20°: 4.3m	100	65	S_1 22°: 5.4m S_1 15-25°: 6.8m
8.1 - 18.0	pgh	3-7		Chl/clay/sulph		100	87	
18.0 - 22.0	U/C	1-7		Carb	50°: 18m	100	85	
22.0 - 36.0	M/M & L/C	2-5		Chl/carb/sulph	55°: 23.65m 42°: 24.2m 35°: 31.5m 33°: 35.5m	100	93	
36.0 - 47.0	bfb	4-5		Chl/carb/sulph	40°: 39m 2°: 42m 0°: 44.3m	100	93	
47.0 - 52.6	bh/ph/gh	10-15		Chl/clay/sulph/carb	0°: 47.2m 0°: 49.2m	100	53	
	FAULT ZONE 47.0 - 52.0m							
52.6 - 57.0	bh	6		Chl/sulph/carb/	35°: 55.45	100	88	
57.0 - 61.6	ch	6		Chl/carb		100	62	
61.6 - 64.6	Ch/clay	20		Clay/carb		100	17	
64.5 - 81.0	ch	6-10		Chl/clay/carb/sulph	40°: 78.8m	100	66	

FURTHER DATA & REMARKS

1. Detailed % core recoveries within each depth interval is shown in the core recovery tabulation.
2. R.Q.D. (rock quality designation) += $\frac{\text{Length Core} > 10 \text{ cm}}{\text{Length Drilled}}$
3. Core size.

GEOLOGY - KING ISLAND SCHEELITE

SUMMARY STRUCTURAL DATA

D.D.H. No. D 020/6

DEPTH INTERVAL (METRES)	ROCK TYPE	FRAC-TURES /m	JOINT ANGLE (WRT/ LAOC)	JOINT FILLING	BEDDING ANGLE (W. R. T./ L. A.O.C.)	% CORE RECO-VERY	R. Q. D.	REMARKS (WEATHERING)
81.0 - 83.5	L Vol	13		Chl/clay/carb		100	58	
83.5 - 88.6	Granite(?)	8		Chl/sulph/carb/iron		100	43	
EOH 88.6m								

FURTHER DATA & REMARKS

1. Detailed % core recoveries within each depth interval is shown in the core recovery tabulation.
2. R.Q.D. (rock quality designation) += $\frac{\text{Length Core} > 10 \text{ cm}}{\text{Length Drilled}}$
3. Core size. 46TT

GEOLOGY - KING ISLAND SCHEELITE

ASSAY DATA

D.D.H. No. D 020/6

SAMPLE NO.	DEPTH (METRES)				ELEMENTS			COMMENTS
	From	To	Length	Length Rec.	WO_3	Mo		
D 10484	8	9	1.0	1.0	<0.01	<0.01		
85	9	10	"	"	<0.01	<0.01		
86	10	11	"	"	<0.01	<0.01		
87	11	12	"	"	<0.01	0.01		
88	12	13	"	"	0.14	0.01		
89	13	14	"	"	1.60	0.04		
90	14	15	"	"	0.85	0.03		
91	15	16	"	"	0.70	0.02		
92	16	17	"	"	0.31	<0.01		
93	17	18	"	"	0.03	0.01		
94	18	19	"	"	5.90	0.14		
95	19	20	"	"	3.13	0.07		
96	20	21	"	"	2.32	0.04		
97	21	22	"	"	2.25	0.06		
98	22	23	"	"	<0.01	<0.01		
99	23	24	"	"	<0.01	<0.01		
10500	24	25	"	"	0.29	<0.01		
11001	25	26	"	"	0.97	0.03		
02	26	27	"	"	0.09	<0.01		
03	27	28	"	"	0.29	<0.01		
04	28	29	"	"	0.17	<0.01		
05	29	30	"	"	0.48	0.01		
06	30	31	"	"	1.06	0.02		
07	31	32	"	"	0.13	<0.01		
08	32	33	"	"	0.30	<0.01		
09	33	34	"	"	0.80	<0.01		
11010	34	35	"	"	1.06	<0.01		
11	35	36	"	"	0.37	<0.01		
12	36	37	"	"	<0.01	<0.01		
13	37	38	"	"	0.10	<0.01		
14	38	39	"	"	<0.01	<0.01		
15	39	40	"	"	<0.01	<0.01		
16	40	41	"	"	<0.01	<0.01		
17	41	42	"	"	<0.01	<0.01		
18	42	43	"	"	<0.01	<0.01		
19	43	44	"	"	<0.01	<0.01		
11020	44	45	"	"	<0.01	<0.01		
21	45	46	"	"	0.06	<0.01		
22	46	47	"	"	<0.01	<0.01		
23	47	48	"	"	<.01	<0.01		
24	48	49	"	"	<0.01	<0.01		
25	49	50	"	"	0.05	<0.01		
26	57	58	"	"	<0.01	<0.01		
27	58	59	"	"	0.14	<0.01		
28	59	60	"	"	0.12	<0.01		
29	60	61	"	"	0.21	<0.01		
11030	61	62	"	"	<0.01	<0.01		

SPECIFIC GRAVITY

Depth (metres):

Rock Type:

S.G.:

Determined by:

GEOLOGY - KING ISLAND SCHEELITE

GEOLOGICAL LOG

D.D.H. No. D 020/6

0.0 - 8.10m BIOTITE HORNFELS

Brownish coloured, medium grained biotite hornfels with no visible scheelite.

Possible bedding or 'shear foliation' is recorded as.

	(?)Bedding	20^{o} to	LCA at	4.3m
S_1	or Bedding	22^{o}		5.4m
	S_1	15-25		6.8m

A probable fault occurs at 6.8m where shearing and carbonate veining is dominant. The core from 6.6 - 8.1m has a schistose - like texture and suggest proximity to a fault, or caused by intrusion of the lamprophyre dyke.

A lamprophyre(?) dyke occurs from 5.8 - 6.6m.

8.10 - 18.0 PYROXENE GARNET HORNFELS

Typical pyroxene garnet hornfels with pods and fragments of marble, and associated metamorphic reation rims.

Minor patchy scheelite mineralisation is present, and apart from the coarse veining at 13.98m and 15m, and the lower 1.5m of the unit, is unlikely to go ore grade (approx. 0.2 - 0.3% WO_3)

A lamprophyre dyke occurs from 10.25 - 11.60m.

18.0 - 22.0 ANDRADITE SKARN - UPPER C

Coarse grained, very high grade Upper C-lens andradite garnet skarn. Grade is estimated to be around 2.0 % WO_3.

Contact with pyroxene garnet hornfels above is 50^{o} to LCA.

22.0 - 24.50(?) MARBLE MARKER

Marble marker unit consisting dominantly of marble with interbeds of pyroxene hornfels, biotite hornfels, grossular and rare andradite.

The base of the unit is difficult to determine and could be as low as 27.0m (?). It grades imperceptibly into Lower C-lens skarn.

Some scheelite is present but unlikely to go ore grade.

Bedding	55^{o} to	LCA at	23.65m
Bedding	42^{o}		24.2m

(?)24.50 - ?36.0 BANDED SKARN - LOWER C

Well bedded Lower C-lens skarn with numerous interbeds of biotite hornfels, pyroxene hornfels and unreplaced marbles. Low to medium grade disseminated scheelite is present, but in places could be patchy.

GEOLOGY - KING ISLAND SCHEELITE

GEOLOGICAL LOG

D.D.H. No. D 020/6

The base of the unit where is grades into a pyroxene - grossular rich unit is agiain difficult to determine with accuracy. (Assay results will be required). It could be as high as 35.5m, and as low as 39.0m.

Bedding	53°	to	LCA	at 26.85m
Bedding	35°			31.5m
Bedding	33°			35.5m

(?)36.0 - 47.0 BANDED FOOTWALL BEDS? (PYROXENE - GROSSULAR ROCK)

Very poorly mineralised sequence of dominantly pyroxene hornfels, grossular, quartz with minor amounts of andradite and carbonate.

The bedding decreases in dip from around 40° to sub-parallel to LCA at the base of the unit (close to major fault zone).

Fragmented and disturbed pyroxene and grossular rich rocks are common.

Bedding	40°	to	LCA	at 39.0
Bedding	2°			42.0m
Bedding	subparallel			44.3

47.0 - ?52.0 FAULT ZONE

Major fault zone with abundant brecciation, carbonate veining and broken core.

Not the whole unit is a fault zone, but numerous faults are present and cumulatively add up to a bad ground zone.

The worst zones occurs from 47.0 - 48.5m, and 50.5 - 52.0m.

Some rare scheelite is present.

Bedding around 47.2m and 49.2m is subparallel to LCA.

52.0 - 57.05 BIOTITE HORNFELS

Fine grained, dark brown coloured biotite hornfels with no visible scheelite present. Possible bedding (?) at 54.0m is almost sub-parallel to LCA.

Bedding 35° to LCA at 55.45m

Contact with marble below appears stratigraphic.

GEOLOGY - KING ISLAND SCHEELITE

GEOLOGICAL LOG

D.D.H. No. D 020/6

57.05 - 81.0 B-LENS MARBLE

Grey coloured B-lens marble with only rare scheelite at the top of the unit from 57.05 - 61.60m.

The unit is much disturbed with numerous clay filled fractures, joints and faults.

from 61.6 - 64.6m, the marble has been weathered and leached to a clay and is completely imcompetent. The presence of a major fault cannot be excluded.

A fault also occurs around 72m where shearing, brecciation and slickensides are common. (perhaps caused by intrusion of granite dyke). Other probably fault zones occur at 65m, 67.95m, 79.2m.

A granite dyke occurs from 70.4 - 71.9m, and is quite broken and fractured.

?Broken 40^{o} to LCA at 78.8m

Pyroxene alteration is common athroughout the sequence (ie 65 - 67.7m).

81.0 - 83.50 ?LOWER VOLCANICS

Sequence of spotted Lower Volcanics with no visible scheelite. Looks similar to typical Lower Volcanics.

83.50 - 88.60 GRANITE (?)

Coarse grained, pyrite rich, grey coloured granite which may represent an endoskarn before the pink granite proper?

Pyrite masses and cubes are common throughout. The core is sligthy fractured and broken. No scheelite mineralisation is present.

Red iron oxidation and carbonate along joints/fractures suggests the presence of water within the unit.

EOH 88.6m

GEOLOGY - KING ISLAND SCHEELITE

CHECK ASSAY DATA

D.D.H. No. D 020/6

LAB.	K.I.S.		LAB.	K.I.S. CHECK		LAB.	AMDEL		LAB.	A.C.S.L.		
Original Sample No.	WO_3	Mo	Check Sample No.	WO_3	Mo	Check Sample No.	WO_3	Mo	Check Sample No.	WO_3	Mo	
10490	0.85	0.03	11931	2.1		11932	2.06		11933	1.56		
10500	0.29	<0.01	11934	0.2		11935	0.26		11936	0.22		
11011	0.37	<0.01	11937	0.51		11938	0.46		11939	0.32		
11029	0.21	<0.01	11940	0.23		11941	0.33		11942	0.26		

GEOLOGY - KING ISLAND SCHEELITE

LOG OF D.D.H. No. D 020/5

PLANNING

PROPOSER: G. J. Bujtor DEPTH:

LOCATION: H11 off I12

PURPOSE OF HOLE: To Define Pit Dag Orebody

PROPOSED CO-ORDS: 220020 E 564010 N

INCLINATION: Horizontal

BEARING: 0^{o} ^{o}GRID ^{o}MAG

TARGET: E N

DEPTH:

CHECKED BY: DATE:

SURVEY

SURVEY CO-ORDS: E N

SURVEYED BEARING: 0^{o} 41' ^{o}GRID ^{o}MAG

SURVEYED IN BY: DATE:

ACTUAL CO-ORDS: 220021.3 E 564013.9 N

R.L. OF COLLAR: -166.7

INCLINATION OF HOLE: 0^{o} 30'

PICKED UP BY: W. Davies DATE: 4/5/79

SUMMARY

LOGGED BY: G. J. Bujtor

RESULTS: 7.0 - 8.0m 0.35% WO_3
9.0 -10.0m 0.60% WO_3

DRILLING

DATE COMMENCED: 23.4.79 DATE TERMINATED: 24.4.79

DRILLER/CONTRACTOR: ADD

CASING: SIZE:
DEPTH:

CORE: SIZE: 46TT
DEPTH: 20m

WEDGE PLACED: Nil DEPTH: PROPOSER:

EXTENSION: Nil

FINAL DEPTH: 20,00m

REASON FOR TERMINATION:

CONDITION OF HOLE ON COMPLETION:

CASING:

CEMENTED:

BORE HOLE SURVEY:

WATER:

COMMENTS ON DRILLING CONDITIONS: Good

GEOLOGY - KING ISLAND SCHEELITE

SUMMARY BORE HOLE SURVEY DATA

D.D.H. No. D 020/5

Surveyed method: Not surveyed
Final depth: 20.00
Casing depth:

Depth surveyed to:
Date surveyed:
Surveyed by:
Checked by:

Bearing			Inclination		True Vertical Depth (m)	Co-ordinates	
Depth (m)	Grid	Mag.	Read	Corr.		N	W
0	0^{o} 41'			-0^{o} 30'	0	0	0

REMARKS:

GEOLOGY - KING ISLAND SCHEELITE

CORE RECOVERY

D.D.H. No. D 020/5

INTERVAL (m)	LENGTH (m)	LENGTH RECOVERED (m)	% CORE RECOVERY
0.0 - 3.55	3.55	3.55	100
3.55 - 6.0	2.45	2.45	100
6.0 - 8.6	2.6	2.6	100
8.6 - 10.1	1.5	.15	100
10.1 - 12.5	2.4	2.4	100
12.5 - 14.0	1.5	1.5	100
14.0 - 16.0	2.0	2.0	100
16.0 - 18.0	2.0	2.0	100
18.0 - 20.0	2.0	2.0	100
EOH 20.0m			

GEOLOGY - KING ISLAND SCHEELITE

SUMMARY STRUCTURAL DATA

D.D.H. No. D 020/5

DEPTH INTERVAL (METRES)	ROCK TYPE	FRACTURES /m	JOINT ANGLE (WRT/ LAOC)	JOINT FILLING	BEDDING ANGLE (W.R.T./ L.A.O.C.)	% CORE RECOVERY	R.Q.D.	REMARKS (WEATHERING)
0.0 - 10.1m	L/C	6		Chl/clay/carb/sulph	35° - 3.6m 48° - 6.85 37° - 8.0	100	75	
10.1 - 20.0	Bph	3-10		Chl/sulph/carb	60° - 10.9 25° - 14.3 50° - 16.3 63° - 19.5	100	67	
EOH 20.0m								

FURTHER DATA & REMARKS

1. Detailed % core recoveries within each depth interval is shown in the core recovery tabulation.
2. R.Q.D. (rock quality designation) += $\frac{\text{Length Core} > 10 \text{ cm}}{\text{Length Drilled}}$
3. Core size.

GEOLOGY - KING ISLAND SCHEELITE

ASSAY DATA

D.D.H. No. D 020/5

SAMPLE NO.	DEPTH (METRES)				ELEMENTS			COMMENTS
	From	To	Length	Length Rec.	WO_3	Mo		
D 10472	0	1	1.0	1.0	0.12	0.01		
73	1	2	"	"	0.15	<0.01		
74	2	3	"	"	0.09	<0.01		
75	3	4	"	"	0.18	<0.01		
76	4	5	"	"	0.18	<0.01		
77	5	6	"	"	0.09	<0.01		
78	6	7	"	"	0.28	<0.01		
79	7	8	"	"	0.35	<0.01		
80	8	9	"	"	0.18	0.01		
81	9	10	"	"	0.60	<0.01		
82	10	11	"	"	0.05	0.02		
83	11	12	"	"	0.01	0.04		

SPECIFIC GRAVITY

Depth (metres):

Rock Type:

S.G.:

Determined by:

GEOLOGY - KING ISLAND SCHEELITE

GEOLOGICAL LOG

D.D.H. No. D 020/5

0.0 - 10.0m **BANDED SKARN**

Well bedded/banded Lower c-lens skarn with only low - fair grade scheelite mineralisation. Towards the base of the unit, increase biotite hornfels/pyroxene hornfels comes in (ie particularly between 7.5 - 8.6m). The lower contact is taken at the last bit of skarn mineralisation.

No obvious major faults are present.

Bedding	35^{o}	to	LCA	at 3.6m
Bedding	48^{o}			6.85m
Bedding	37^{o}			8.0m

10.10 - 20.0 **BIOTITE - PYROXENE HORNFELS**

Interbedded, fine grained biotite pyroxene hornfels with no obvious scheelite mineralisation present.

In places the unit is fractured and disturbed ie. around 12.0m, 13.5 - 14.0m, and around 16.0m.

Bedding varies throughout and, in places is disturbed and micro-faulted.

Bedding	60^{o}	to	LCA	at 10.9m
Bedding	25^{o}			14.3m
Bedding	50^{o}			16.3m
Bedding	63^{o}			19.5m

EOH 20.0m

GEOLOGY - KING ISLAND SCHEELITE

CHECK ASSAY DATA

D.D.H. No. D 020/5

LAB.	K.I.S.		LAB.	K.I.S. CHECK		LAB.	AMDEL		LAB.	A.C.S.L.		
Original Sample No.	WO_3	Mo	Check Sample No.	WO_3	Mo	Check Sample No.	WO_3	Mo	Check Sample No.	WO_3	Mo	
10480	0.18	0.01	11928	0.16		11929	0.2		11930	0.17		

GEOPEKO LIMITED - KING ISLAND

LOG OF D.D.H. NO. D 020/4

PLANNING

Proposer: M.J. Danielson — Depth: 100m

Location: G 14 Ramp.

Purpose of hole: C lens oreblocking.

Co-ordinates: 220 020 E 564 074 N
Inclination: -55° Magnetic:
Bearing 180 Grid Target Depth:
Target: E N
Approved by: M.C. Rogers Date: 1/3/76

SURVEY

Survey Co-ords: E N
Survey bearing: 179°40' Grid Magnetic:
Surveyed in by: Date:
Actual Co-ords: 220 020.3 E 564 075.5 N
R.L. of Collar: -69.9 Inclination of Hole: -53°10'
Picked up by: R.J.H. Date: 23/3/76

SUMMARY

Logged by: M.J. Danielson
Results: B lens 14 - 16m, 2m @ 0.35% WO_3
77 - 90m, 13m @ 0.87% WO_3
93 - 102m, 9m @ 0.96% WO_3

DRILLING

Driller/Contractor: A.D.D.

Date commenced: 11/3/76. Date terminated: 19/3/76

Casing: Size:	BX			
Depth:	1.5			
Core: Size:	NQ	BQ		
Depth:	1.5	110.4		

Wedge Runoff:
Wedge placed: Nil. Depth:
Proposed by: Approved by:
Reason:
Extension: Nil.
Reason for termination: Hole passed below C lens mineralisation.

Condition of hole on completion: Final depth: 110.4
Casing: 1.5m BX remains.
Cemented: Yes.
Bore hole survey: Surveyed to 108m
Water: Nil.

Comments on drilling conditions:

GEOPEKO LIMITED - KING ISLAND

SUMMARY BORE HOLE SURVEY DATA

D.D.H. No. D 020/4

Survey method: Multishot camera

Final Depth : 110.4m.

Casing depth: 1.5m

Depth surveyed to: 108m

Date surveyed : 19/3/76

Surveyed by: M.D.

Checked by : M.D.

Depth (m)	Bearing		Inclination		True vertical depth	Co-ordinates	
	Grid	Mag.	Read	Corrected		S	E
15	180°	170°	36°	-64°	12.13	8.68	1.53
30	180.5°	170.5°	35.5°	-64.5°	24.34	17.28	2.97
45	185°	175°	35 °	-65°	36.63	25.85	3.72
60	183°	173°	33°	- 67°	49.21	33.96	4.71
75	184°	174°	32.75°	-67.25°	61.82	42.02	5.56
90	186°	176°	33°	-67°	74.40	50.17	6.13
108	188°	178 °	32.5°	-67.5°	89.5	59.83	6.47

REMARKS:

GEOPEKO LIMITED - KING ISLAND

SUMMARY STRUCTURAL DATA

D.D.H. No. D 020/4

Depth Interval (metres)	Rock Type	Fractures /m.	Joint Angle (wrt LAOC)	Joint Filling	Bedding Angle (w.r.t. L.A.O.C.)	% Core Recovery	R.Q.D.	Remarks (weathering)
0 - 23.4	B lens	7		clay	7m 52° 8m 50° 22m 43°	98	71	Possible Fault 16.9 - 17.0.
23.4 - 29.4	bh	+10		clay, carbonate minor pyrite		97	27	Moderately broken. No evidence of faulting.
29.4 - 59.4	bh	5		clay		100	88	
59.4 - 74.4	pgh	4		clay minor carbonate		99	85	clay recemented breccia 66.70 - 66.75
74.4 - 110.4	gh/bfb	6		clay	90m 45°	100	85	

FURTHER DATA & REMARKS

1. Detailed % core recoveries within each depth interval is shown in the core recovery tabulation.
2. R.Q.D. (rock quality designation) $= \frac{\text{length core } >10 \text{ cms}}{\text{length drilled}} \%$
3. Core size. 0 - 1.52 NQ 47.6mm
   1.52 - 110.4 BQ 36.5mm

GEOPEKO LIMITED - King Island

CORE RECOVERY

D.D.H. No. D 020/4

INTERVAL (m)	LENGTH (m)	LENGTH RECOVERED (m)	% CORE RECOVERY
0 - 2.4	2.4	2.1	87
5.4	3	3	100
8.4	3	2.95	98
11.4	3	3	100
14.4	3	3	100
17.4	3	3	100
20.4	3	3	100
23.4	3	3	100
26.4	3	3	100
29.4	3	2.8	93
32.4	3	3	100
35.4	3	3	100
38.4	3	3	100
41.4	3	3	100
44.4	3	3	100
47.4	3	2.9	97
50.4	3	3	100
53.4	3	3	100
56.4	3	3	100
59.4	3	3	100
62.4	3	2.95	98
65.4	3	3	100
68.4	3	2.95	98
71.4	3	3	100
74.4	3	3	100
77.4	3	3	100
80.4	3	3	100
83.4	3	2.9	97
86.4	3	3	100
89.4	3	3	100
92.4	3	3	100
95.4	3	3	100
98.4	3	3	100
101.4	3	3	100
104.4	3	3	100
107.4	3	3	100
110.4	3	3	100
E.O.H.			

GEOPEKO LIMITED - DOLPHIN MINE

ASSAY DATA

D.D.H, No. D 020/4

SAMPLE No.	DEPTH (METRES) From	To	Length	Length Recovered	ELEMENTS WO_3	Mo	COMMENTS
D4816	12	13	1.0	1.0	0.03	<0.01	
7	13	14	1.0	1.0	0.17	<0.01	
8	14	15	1.0	1.0	0.36	0.06	B lens 2m @
9	15	16	1.0	1.0	0.35	0.03	0.35% WO_3
20	16	17	1.0	1.0	<0.01	<0.01	
4821	63	64	1.0	1.0	<0.01	<0.01	
2	64	65	1.0	1.0	0.06	<0.01	
3	65	66	1.0	1.0	0.21	0.01	
4	66	67	1.0	1.0	<0.01	<0.01	
5	67	68	1.0	1.0	<0.01	<0.01	
6	68	69	1.0	1.0	0.09	<0.01	
7	69	70	1.0	1.0	0.09	<0.01	
8	70	71	1.0	1.0	0.14	<0.01	
9	71	72	1.0	1.0	0.11	<0.01	
30	72	73	1.0	1.0	0.08	<0.01	
1	73	74	1.0	1.0	0.05	<0.01	
2	74	75	1.0	1.0	<0.01	<0.01	
3	75	76	1.0	1.0	0.09	<0.01	
4	76	77	1.0	1.0	0.05	<0.01	
5	77	78	1.0	1.0	0.35	<0.01	
6	78	79	1.0	1.0	0.57	0.01	
7	79	80	1.0	1.0	0.92	0.01	
8	80	81	1.0	1.0	0.82	0.04	
9	81	82	1.0	1.0	0.97	0.04	C lens 13m @
40	82	83	1.0	1.0	0.99	0.05	0.87% WO_3
1	83	84	1.0	1.0	0.92	0.04	
2	84	85	1.0	1.0	1.01	0.05	
3	85	86	1.0	1.0	1.60	0.07	
4	86	87	1.0	1.0	0.72	0.03	
5	87	88	1.0	1.0	0.47	0.01	
6	88	89	1.0	1.0	1.19	0.05	
7	89	90	1.0	1.0	0.85	0.03	
8	90	91	1.0	1.0	0.05	<0.01	
9	91	92	1.0	1.0	<0.01	<0.01	
50	92	93	1.0	1.0	0.19	<0.01	
1	93	94	1.0	1.0	0.67	0.02	
2	94	95	1.0	1.0	0.63	0.03	
3	95	96	1.0	1.0	1.90	0.08	
4	96	97	1.0	1.0	1.29	0.04	

SPECIFIC GRAVITY

Determined by:

Depth (m) :
Rock Type :
S.G. :

GEOPEKO LIMITED - DOLPHIN MINE

ASSAY DATA

D.D.H. No. D 020/4

SAMPLE No.	DEPTH (METRES) From	To	Length	Length Recovered	ELEMENTS WO_3	Mo	COMMENTS
5	97	98	1.0	1.0	0.72	0.02	9m @ 0.96% WO_3
6	98	99	1.0	1.0	0.67	0.02	
7	99	100	1.0	1.0	0.08	<0.01	
8	100	101	1.0	1.0	0.82	0.04	
9	101	102	1.0	1.0	1.86	0.07	
60	102	103	1.0	1.0	<0.01	<0.01	
1	103	104	1.0	1.0	<0.01	<0.01	
2	104	105	1.0	1.0	<0.01	<0.01	
3	105	106	1.0	1.0	<0.01	<0.01	
4	106	107	1.0	1.0	<0.01	<0.01	
5	107	108	1.0	1.0	0.16	<0.01	
6	108	109	1.0	1.0	0.37	<0.01	
D4867	109	110	1.0	1.0	0.12	<0.01	

SPECIFIC GRAVITY

Depth (m) :
Rock Type :
S.G. :

Determined by:

GEOPEKO LIMITED - KING ISLAND

CHECK ASSAY DATA

D.D.H. D 020/4

LAB.	K.I.S.		LAB. K.I.S.			LAB. AMDEL			LAB. ACSL			
Original Sample No.	WO_3	Mo	Check Sample No.	WO_3	Mo	Check Sample No.	WO_3	Mo	Check Sample No.	WO_3	Mo	
D4823	0.21		D5056	<0.01		D5057	0.084		D5058	0.062		
4833	0.09		5059	0.16		5060	0.17		5061	0.18		
4843	1.60		5062	1.57		5063	1.64		5064	1.87		
4853	1.90		5065	1.76		5066	2.04		5067	2.00		
D4863	<0.01		D5068	0.01		D5069	0.026		D5070	0.007		

GEOPEKO LIMITED - KING ISLAND

GEOLOGICAL LOG

D.D.H. No. D 020/4

0.0 - 22.0 B LENS

A variety of hornfels as follows:

0.0 - 9.0 biotite pyroxene hornfels

A barren grey bh with minor green ph. Some thin bedding apparent.

9.0 - 14.5 garnet pyroxene hornfels

Mostly a green pyroxene hornfels with pale pink grossular garnet. Minor disseminated scheelite 13.5 - 14.5m.

14.5 - 15.4 marble

15.4 - 16.1 garnet pyroxene hornfels

Weak disseminated scheelite in a pyroxene rich grossular garnet skarn.

16.1 - 22.0 tuffite (?)

A pale brown grey rock with abundant brown flecks of biotite. Weakly fragmental volcanic texture - certainly not a hornfels texture.

Possible fault at 16.9 - 17.0m.

22.0 - 60.9 BIOTITE HORNFELS

Barren grey brown bh. Core is moderately broken between 23 - 29m but does not appear brecciated or faulted. Poor ground is often typical of the B lens footwall contact as experienced in mining the G 14 ramp.

60.9 - 78.5 PYROXENE GARNET HORNFELS

A pale green pyroxene rock with white calcite ovoids up to 2cm dia rimmed by pale brown grossular garnet. Variable but mostly weak mineralisation.

78.5 - 90.0 GARNET HORNFELS (UPPER C LENS)

High grade mineralisation finely disseminated in a massive medium to coarse grained andradite skarn.

Biotite hornfels 87.5 - 87.8m.

Unit is more pyroxene rich 89 - 90m.

90.0 - 101.2 GARNET HORNFELS

This unit is more pyroxene rich than that described with minor grossular garnet in a fine to medium grained andradite skarn. Moderate disseminated scheelite. This unit is not banded as is usually the case with Lower C lens.

101.2 - 110.4 FOOTWALL HORNFELS

A variable unit of barren bh, ch, weakly mineralised gph.

Bedding 103m 45° L.A.O.C.

110.4m E.O.H.

GEOPEKO LIMITED - KING ISLAND

LOG OF D.D.H. NO. D 020/3

PLANNING

Proposer: M.J. Danielson — Depth: 70m.

Location: G 14 Ramp

Purpose of hole: C lens oreblocking

Co-ordinates: 220 020 E 564074 N
Inclination: -84 Magnetic:
Bearing 180 Grid Target Depth:
Target: E N
Approved by: M.C. Rogers Date: 1/3/76

SURVEY

Survey Co-ords: E N
Survey bearing: 178°20' Grid Magnetic:
Surveyed in by: Date:
Actual Co-ords: 220 020.3 E 564076.1 N
R.L. of Collar: -70.0 Inclination of Hole: -83°10'
Picked up by: R.J.H Date: 23/3/76

SUMMARY

Logged by: M.J. Danielson
Results: 38.0 - 56.0m, 18m @ 0.77% WO_3
64 - 66m, 2m @ 0.48% WO_3

DRILLING

Driller/Contractor: A.D.D.

Date commenced: 4/3/76 Date terminated: 11/3/76

Casing:	Size:	BX			
	Depth:	1.5			
Core:	Size:	NQ	BQ		
	Depth:	1.5	77.6		

Wedge Runoff:
Wedge placed: Nil Depth:
Proposed by: Approved by:
Reason:

Extension: Nil
Reason for termination: Hole passed below C lens mineralisation.
Condition of hole on completion: Final depth: 77.6m
Casing: 1.5m BX remains
Cemented: Yes
Bore hole survey: Surveyed to 75m.
Water: Nil

Comments on drilling conditions:

GEOPEKO LIMITED - KING ISLAND

SUMMARY BORE HOLE SURVEY DATA

D.D.H. No. D 020/3

Survey method : Multishot Camera
Final depth : 77.6m
Casing depth : 1.5m

Depth surveyed to : 75m
Date surveyed : 11.3.76
Surveyed by : M.J.D.
Checked by : M.J.D.

Depth (m)	Bearing		Inclination		True vertical Depth (m)	Co-ordinates	
	Grid	Mag.	Read	Corrected		S	E
15	180°	170°	5° 45'	-84° 15'	14.92	1.48	0.26
30	194°	184°	5° 15'	-84° 45'	29.86	2.85	0.16
45	198°	188°	5° 30'	-84° 30'	44.79	4.28	W 0.04
60	197° 30'	187° 30'	5° 30'	-84° 30'	59.72	5.71	0.23
75	206°	196°	5° 30'	-84° 30'	74.65	7.09	0.63

REMARKS:

GEOPEKO LIMITED - KING ISLAND

SUMMARY STRUCTURAL DATA

D.D.H. No. D 020/3

Depth Interval (metres)	Rock Type	Fractures /m.	Joint Angle (wrt LAOC)	Joint Filling	Bedding Angle (w.r.t. L.A.O.C.)	% Core Recovery	R.Q.D.	Remarks (weathering)
0 - 32.6	B lens bh	7		clay. montmorillonite at 12.7 - 13.0 17.7	4m. 50° 7m. 35° 29m. 55°	97	71	7.3 - 8.0 broken ground. Possible faults Clay + carbonate recemented breccia 12.7 - 13.0 27.7 - 27.9
32.6 - 65.6	pgh, gh, banded gh	5		clay, minor carbonate	45m 75° 51m 72° 59m 60° 64m 75°	100	84	broken ground 56.0 - 56.6 which is a carbonate filled joint subparallel to L.A.O.C.
65.6 - 77.6	banded gh, banded bh/ph	+10		clay, minor pyrite	71m 64°	100	41	

FURTHER DATA & REMARKS

1. Detailed % core recoveries within each depth interval is shown in the core recovery tabulation.
2. R.Q.D. (rock quality designation) $+= \frac{\text{length core } >10 \text{ cms}}{\text{length drilled}}$ %
3. Core size. 0 - 1.5 NQ. 47.6mms dia
   1.5 - 77.6 BQ. 36.5mms dia

GEOPEKO LIMITED - King Island

CORE RECOVERY

D.D.H. No. D 020/3

INTERVAL (m)	LENGTH (m)	LENGTH RECOVERED (m)	% CORE RECOVERY
0 - 2.6	2.6	2.3	88
5.6	3.0	3.0	100
10.0	4.4	3.9	89
11.6	1.6	1.6	100
14.6	3	2.9	97
17.6	3	2.8	93
20.6	3	3	100
23.6	3	3	100
26.6	3	3	100
29.6	3	3	100
32.6	3	2.9	97
35.6	3	3	100
38.6	3	3	100
41.6	3	3	100
44.6	3	3	100
47.6	3	2.9	97
50.6	3	3	100
53.6	3	3	100
56.6	3	3	100
59.6	3	3	100
62.6	3	3	100
65.6	3	3	100
68.6	3	3	100
71.6	3	3	100
74.6	3	3	100
77.6	3	3	100
E.O.H.			

GEOPEKO LIMITED - DOLPHIN MINE

ASSAY DATA

D.D.H. No. D020/3

SAMPLE No.	DEPTH (METRES) From	To	Length	Length Recovered	ELEMENTS WO_3	Mo	COMMENTS
D4781	36	37	1.0	1.0	0.17	0.01	
2	37	38	1.0	1.0	0.10	0.01	
3	38	39	1.0	1.0	2.30	0.07	
4	39	40	1.0	1.0	2.60	0.12	
5	40	41	1.0	1.0	0.98	0.02	
6	41	42	1.0	1.0	1.00	0.03	
7	42	43	1.0	1.0	1.08	0.02	
8	43	44	1.0	1.0	0.39	<0.01	
9	44	45	1.0	1.0	0.40	<0.01	
90	45	46	1.0	1.0	0.26	<0.01	38m - 56m, 18m @
1	46	47	1.0	1.0	0.45	<0.01	0.77% WO_3
2	47	48	1.0	1.0	0.70	<0.02	
3	48	49	1.0	1.0	0.29	<0.01	
4	49	50	1.0	1.0	0.20	<0.01	
5	50	51	1.0	1.0	0.17	<0.01	
6	51	52	1.0	1.0	1.02	<0.01	
7	52	53	1.0	1.0	0.50	<0.01	
8	53	54	1.0	1.0	0.54	<0.01	
9	54	55	1.0	1.0	0.23	<0.01	
D4800	55	56	1.0	1.0	0.72	0.02	
D4801	56	57	1.0	1.0	<0.01	<0.01	
2	57	58	1.0	1.0	0.11	<0.01	
3	58	59	1.0	1.0	0.23	0.01	
4	59	60	1.0	1.0	0.01	<0.01	
5	60	61	1.0	1.0	0.18	<0.01	
6	61	62	1.0	1.0	0.03	<0.01	
7	62	63	1.0	1.0	0.10	<0.01	
8	63	64	1.0	1.0	0.14	<0.01	
9	64	65	1.0	1.0	0.48	<0.01	64m - 66m, 2m @
10	65	66	1.0	1.0	0.49	<0.01	0.48% WO_3
1	66	67	1.0	1.0	0.02	<0.01	
2	67	68	1.0	1.0	<0.01	<0.01	
3	68	69	1.0	1.0	<0.01	<0.01	
4	69	70	1.0	1.0	<0.01	<0.01	
D4815	70	71	1.0	1.0	0.29	<0.01	

SPECIFIC GRAVITY

Depth (m) :
Rock Type :
S.G. :

Determined by:

GEOPEKO LIMITED - KING ISLAND

CHECK ASSAY DATA

D.D.H. D 020/3

LAB.	K.I.S.		LAB. K.I.S.			LAB. AMDEL			LAB. ACSL.			
Original Sample No.	WO_3	Mo	Check Sample No.	WO_3	Mo	Check Sample No.	WO_3	Mo	Check Sample No.	WO_3	Mo	
D4783	2.30		D5044	2.33		D5045	2.80		D5046	2.52		
4793	0.29		5047	0.29		5048	0.36		5049	0.42		
4803	0.23		5050	0.18		5051	0.225		5052	0.21		
4813	<0.01		D5053	<0.01		D5054	0.019		D5055	0.003		

GEOPEKO LIMITED - KING ISLAND

GEOLOGICAL LOG

D.D.H. No. D 020/3

0 - 9.0m B LENS

Dominantly a barren brown biotite hornfels with minor (< 10%) barren green pyroxene interbeds.
Broken ground 7.3 - 8.0m

9.0 - 31.8 BIOTITE HORNFELS

Barren grey brown bh.
Broken ground 12.7 - 13.0
and 27.7 - 27.9
both of which are possible faults.

31.8 - 39.1 PYROXENE GARNET HORNFELS

Weakly mineralised (sub oregrade) mottled green pyroxene and pale pink brown grossular garnet rock. Occasional white carbonate pods.

39.1 - 44.0 GARNET HORNFELS

Massive, medium to coarse grained andradite garnet skarn. Abundant fine disseminated scheelite.

44.0 - 46.0 MARKER HORIZON

A barren to very weakly mineralised unit consisting of barren bh and minor grossular garnet and pyroxene between 44 - 45m. and barren bh from 45 - 46m.

46.0 - 67.5 BANDED GARNET HORNFELS

A banded unit of mineralised andradite garnet skarn and barren green ph and pale pink grossular interbeds. Bedding is clearly defined.

67.5 - 71.0 BANDED FOOTWALL BEDS

Similar to the banded garnet hornfels unit described above with increasing barren bh/ph interbeds. No mineralisation below 71m.
This unit is sub oregrade.

71.0 - 77.0 BANDED BIOTITE PYROXENE HORNFELS

Thinly bedded barren grey bh and pale green ph. Bedding clearly defined.

77.0 - 77.6 LOWER METAVOLCANICS

Barren grey green massive unit containing abundant brown flecks of biotite. Minor pyrite on fracture surfaces. Not a hornfelsic texture.

77.6 E.O.H.

GEOPEKO LIMITED - KING ISLAND

LOG OF D.D.H. NO. D 020/2

PLANNING

Proposer: M. Danielson — Depth: 60m.

Location: G 14 Ramp

Purpose of hole: To test C lens

Co-ordinates: 220 020 E 564 078 N
Inclination: -67° Magnetic:
Bearing 360 Grid Target Depth:
Target: E N
Approved by: M.C. Rogers Date: 14/1/76

SURVEY

Survey Co-ords: E N
Survey bearing: 002°00' Grid Magnetic:
Surveyed in by: Date:
Actual Co-ords: 220 020.4 E 564 078.2 N
R.L. of Collar: -70.0 Inclination of Hole: -65°10'
Picked up by: R.J.H. Date: 16/3/76

SUMMARY

Logged by: M.J. Danielson.
Results: B lens 11 - 13m, 2m @ 0.82% WO_3
C lens 35 - 40m, 5m @ 0.45% WO_3

DRILLING

Driller/Contractor: A.D.D.

Date commenced: Date terminated: 26/2/76

Casing:	Size:	BX			
	Depth:	1.5			
Core:	Size:	NQ	BQ		
	Depth:	1.5	59.0		

Wedge Runoff:
Wedge placed: Nil. Depth:
Proposed by: Approved by:
Reason:

Extension: Nil
Reason for termination: Hole in unmineralised basal hornfels.

Condition of hole on completion: Final depth: 59.0
Casing: 1.5 BX remains.
Cemented: Yes
Bore hole survey: Surveyed to 59.0m.
Water: Nil.

Comments on drilling conditions:

GEOPEKO LIMITED - KING ISLAND

SUMMARY BORE HOLE SURVEY DATA

D.D.H. No. D 020/2

Survey method : Multishot Camera
Final depth : 59.0
Casing depth : 1.5m.

Depth surveyed to : 59.0m
Date surveyed : 26.2.76
Surveyed by : M.J.D.
Checked by : M.J.D.

Depth (m)	Bearing		Inclination		True vertical Depth (m)	Co-ordinates	
	Grid	Mag.	Read	Corrected			
15	000	350	24	– 66	13.70	6.01	1.06
30	359	349	24	– 66	27.4	12.0	2.22
45	359	349	24	– 66	41.1	17.99	3.38
59	000	350	24	– 66	53.89	23.59	4.37

REMARKS:

GEOPEKO LIMITED - KING ISLAND

SUMMARY STRUCTURAL DATA

D.D.H. No. D 020/2

Depth Interval (metres)	Rock Type	Fractures /m.	Joint Angle (wrt LAOC)	Joint Filling	Bedding Angle (w.r.t. L.A.O.C.)	% Core Recovery	R.Q.D.	Remarks (weathering)
0 - 16.5	B lens	6		clay carbonate	4m:40°	99	76	Broken ground 10.8 - 11.5
16.5 - 19.5	bh	15		clay		100	23	Possible Fault 17.5 - 17.9 - carbonate and clay breccia
19.5 - 31.5	pgh	4		clay	20m: 60°	100	96	
31.5 - 49.5	pgh gh bph	7		clay, minor pyrite and carbonate	39m: 60° 46m: 65°	100	79	broken ground: 32.7 - 33.0 42.2 - 43.2 43.5 - 43.6 49.0 - 49.5
49.5 - 59.0	bph	10		clay	51m: 65° 54m: 65° 58m: 70°	100	54	53 - 57 joints/m +10

FURTHER DATA & REMARKS

1. Detailed % core recoveries within each depth interval is shown in the core recovery tabulation.
2. R.Q.D. (rock quality designation) += $\frac{\text{length core >10 cms}}{\text{length drilled}}$ %
3. Core size. 0 - 1.5 NQ 47.6mms dia
   1.5 - 59.0 BQ 36.5mms dia

GEOPEKO LIMITED - King Island

CORE RECOVERY

D.D.H. No. D 020/2

INTERVAL (m)	LENGTH (m)	LENGTH RECOVERED (m)	% CORE RECOVERY
0 - 1.5	1.5	1.5	100
4.5	3.0	3.0	100
7.5	3.0	2.9	97
10.5	3.0	3.0	100
13.5	3.0	3.0	100
16.5	3.0	3.0	100
19.5	3.0	3.0	100
22.5	3.0	3.0	100
25.5	3.0	3.0	100
28.5	3.0	3.0	100
31.5	3.0	3.0	100
34.5	3.0	3.0	100
37.5	3.0	3.0	100
40.5	3.0	3.0	100
43.5	3.0	3.0	100
46.5	3.0	3.0	100
49.5	3.0	3.0	100
52.5	3.0	3.0	100
55.5	3.0	3.0	100
58.5	3.0	3.0	100
59.0	0.5	0.5	100

GEOPEKO LIMITED - DOLPHIN MINE

ASSAY DATA

D.D.H. No. D 020/2

SAMPLE No.	DEPTH (METRES) From	To	Length	Length Recovered	ELEMENTS WO_3	Mo	COMMENTS
D4699	11	12	1.0	1.0	0.90	0.02	B lens 2m @
4700	12	13	1.0	1.0	0.74	<0.01	0.82% WO_3
4701	26	27	1.0	1.0	0.53	<0.01	
2	27	28	1.0	1.0	<0.01	<0.01	
3	28	29	1.0	1.0	<0.01	<0.01	
4	29	30	1.0	1.0	0.04	<0.01	
5	30	31	1.0	1.0	0.16	<0.01	
6	31	32	1.0	1.0	<0.01	<0.01	
7	32	33	1.0	1.0	0.42	<0.01	
8	33	34	1.0	1.0	<0.01	<0.01	
9	34	35	1.0	1.0	0.04	<0.01	
10	35	36	1.0	1.0	1.02	0.02	
1	36	37	1.0	1.0	0.24	<0.01	
2	37	38	1.0	1.0	0.42	<0.01	C lens 5m @
3	38	39	1.0	1.0	0.27	<0.01	0.45% WO_3
4	39	40	1.0	1.0	0.31	<0.01	
5	40	41	1.0	1.0	0.02	<0.01	
D4716	41	42	1.0	1.0	<0.01	<0.01	

SPECIFIC GRAVITY

Depth (m) :
Rock Type :
S.G. :

Determined by:

GEOPEKO LIMITED - KING ISLAND

CHECK ASSAY DATA

D.D.H. D 020/2

LAB.	K.I.S.		LAB.	K.I.S.		LAB.	AMDEL		LAB.	ACSL		
Original Sample No.	WO_3	Mo	Check Sample No.	WO_3	Mo	Check Sample No.	WO_3	Mo	Check Sample No.	WO_3	Mo	
D4701	0.53		D5038	0.41		D5039	0.58		D5040	0.55		
4710	1.02		5041	0.98		5042	1.10		5043	1.13		

GEOPEKO LIMITED - KING ISLAND

GEOLOGICAL LOG

D.D.H. No. D 020/2

00 - 15.6 B LENS

A variety of rock types comprising the B lens sequence broadly subdivided as below:

00 - 3.8 biotite pyroxene hornfels

Mostly a grey brown bh with occasional thin interbeds of green ph. No mineralisation.

3.8 - 7.7 garnet pyroxene hornfels

A weakly developed pyroxene and grossular garnet skarn. No mineralisation.

7.7 - 11.7 tuffite(?)

A grey brown barren rock with a weakly volcanic fragmental texture. Certainly does not have a hornfels texture.

11.7 - 12.5 garnet pyroxene hornfels

A fine grained pyroxene rich skarn. High grade disseminated scheelite from 11.8 - 12.2m.

12.5 - 15.6 marble

A barren grey marble.

15.6 - 24.3 BIOTITE HORNFELS

Barren pale grey brown biotite hornfels.
Possible fault 17.5 - 17.9m.

24.3 - 35.0 PYROXENE GARNET HORNFELS

Typical pgh. Fine grained pale green pyroxene groundmass containing white carbonate fragments (up to 3cm dia) rimmed by brown grossular garnet.
Sub oregrade mineralisation below 26m.
Broken ground 32.7 - 33.0m.
The unit is rich in bh between 34.2 - 34.9m.

35.0 - 40.6 GARNET HORNFELS

This unit is definitely not andradite garnet skarn typical of the Upper C lens.
It is mostly a fine grained andradite skarn with varying amounts of barren green ph throughout.
Other barren interbeds occur. e.g.
37.5 - 37.7 bh
37.9 - 38.3 bh
38.8 - 39.1 ch

GEOPEKO LIMITED - KING ISLAND

GEOLOGICAL LOG

D.D.H. No. D 020/2

Medium grade mineralisation
35.0 - 35.6
36.5 - 36.9
37.2 - 37.8
Weak sub oregrade mineralisation persists to 39.9

40.6 - 59.0 **BIOTITE PYROXENE HORNFELS**

Mostly a grey brown bh with minor pale green ph interbeds. No mineralisation although occasional specks occur in some very minor grossular garnet interbeds.
e.g. 52.5 - 52.8
55.2 - 55.5
Contorted bedding in this unit illustrates sediment mobility during consolidation.

59.0 E.O.H.

GEOPEKO LIMITED - KING ISLAND

LOG OF D.D.H. NO. D 020/1

PLANNING

Proposer: **M.J. Danielson** Depth: **40**

Location: **G 14 Ramp.**

Purpose of hole: **To test C lens locate No.3 Fault.**

Co-ordinates: **220 020** E **564 078** N
Inclination: **-41** Magnetic:
Bearing **360** Grid Target Depth:
Target: E N
Approved by: **M.C. Rogers** Date: **14.1.76**

SURVEY

Survey Co-ords: E N
Survey bearing: **359°00'** Grid Magnetic:
Surveyed in by: Date:
Actual Co-ords: **220 020.3** E **564 078.6** N
R.L. of Collar: **-70.1** Inclination of Hole: **-41°10'**
Picked up by: **R.J.H.** Date: **27.2.76**

SUMMARY

Logged by: **M. J. Danielson.**
Results: **B lens 14 - 17m 3m @ 0.50% WO_3**
No significant C lens intersection.

DRILLING

Driller/Contractor: **A.D.D.**

Date commenced: **26.2.76** Date terminated: **4.3.76**

Casing:	Size:	BX			
	Depth:	1.5			
Core:	Size:	NQ	BQ		
	Depth:	1.5	53.0		

Wedge Runoff:
Wedge placed: **Nil** Depth:
Proposed by: Approved by:
Reason:

Extension: **Nil**
Reason for termination: **Hole passed below C lens mineralisation**

Condition of hole on completion: Final depth: **53.0**
Casing: **1.5 BX remains**
Cemented: **yes**
Bore hole survey: **Surveyed to 51.0m**
Water: **Nil**

Comments on drilling conditions:

GEOPEKO LIMITED - KING ISLAND

SUMMARY BORE HOLE SURVEY DATA

D.D.H. No. D 020/1

Survey method : Multishot Camera
Final depth : 53.0m.
Casing depth : 1.5m

Depth surveyed to : 51.0
Date surveyed : 4.3.76
Surveyed by : M.J.D.
Checked by : M.J.D.

Depth (m)	Bearing		Inclination		True vertical Depth (m)	Co-ordinates	
	Grid	Mag.	Read	Corrected			
~~15~~	359	349	48.25	-41.75	9.99	10.98	2.13
30	358	348	47.5	-42.5	20.12	21.79	4.43
45	359	349	47.5	-42.5	30.25	32.65	6.54
51	358	348	47.75	-42.25	34.28	36.99	7.46

REMARKS:

GEOPEKO LIMITED - KING ISLAND

SUMMARY STRUCTURAL DATA

D.D.H. No. D 020/1

Depth Interval (metres)	Rock Type	Fractures /m.	Joint Angle (wrt LAOC)	Joint Filling	Bedding Angle (w.r.t. L.A.O.C.)	% Core Recovery	R.Q.D.	Remarks (weathering)
0 - 1.5	B lens	-		clay		100	7	Mostly rubble
1.5 - 17.0	B lens	6		clay minor carbonate	6m 35°	99	72	Broken ground 11.3 - 11.6m minor montmorillonite.
17.0 - 26.0	bh	5		clay minor pyrite	18m 40°	100	74	Broken ground 20.3 - 21.3.
26.0 - 41.0	pgh gph	10		clay, minor carbonate pyrite	37m 55°	99	48	Moderately broken throughout. Possible fault 40.6m.
41.0 - 53.0	bh/ph/ch	5		pyrite carbonate clay	43m 45° 48m 52°	100	81	Possible fault 49.4 - 49.5

FURTHER DATA & REMARKS

1. Detailed % core recoveries within each depth interval is shown in the core recovery tabulation.
2. R.Q.D. (rock quality designation) $= \frac{\text{length core } >10 \text{ cms}}{\text{length drilled}}$ %
3. Core size. 0 - 1.5 NQ 47.6mms dia.
   1.5 - 53.0 BQ 36.5mms dia.

GEOPEKO LIMITED - King Island

CORE RECOVERY

D.D.H. No. D 020/1

INTERVAL (m)	LENGTH (m)	LENGTH RECOVERED (m)	% CORE RECOVERY
0 - 1.5	1.5	1.5	100
2.0	0.5	0.5	100
5.0	3	3	100
8.0	3	3	100
11.0	3	2.95	98
14.0	3	3	100
17.0	3	2.9	97
20.0	3	3	100
23.0	3	3	100
26.0	3	3	100
29.0	3	3	100
32.0	3	3	100
35.0	3	2.9	97
38.0	3	3	100
41.0	3	3	100
44.0	3	3	100
47.0	3	3	100
50.0	3	3	100
53.0	3	3	100
E.O.H.			

GEOPEKO LIMITED - DOLPHIN MINE

ASSAY DATA

D.D.H. No. D 020/1

SAMPLE No.	DEPTH (METRES) From	To	Length	Length Recovered	ELEMENTS WO_3	Mo	COMMENTS
D4773	13	14	1.0	1.0	<0.01	<0.01	
4	14	15	1.0	1.0	0.29	<0.01	B lens.
5	15	16	1.0	1.0	0.85	0.01	14 - 17m
6	16	17	1.0	1.0	0.36	0.01	3m @ 0.50% WO_3
D4777	36	37	1.0	1.0	0.44	<0.01	
8	37	38	1.0	1.0	0.20	<0.01	
9	38	39	1.0	1.0	0.05	<0.01	
D4780	39	40	1.0	1.0	0.20	<0.01	

SPECIFIC GRAVITY

Determined by:

Depth (m) :
Rock Type :
S.G. :

GEOPEKO LIMITED - KING ISLAND

CHECK ASSAY DATA

D.D.H. D 020/1

LAB.	K.I.S.		LAB. K.I.S.			LAB. AMDEL			LAB. ACSL			
Original Sample No.	WO_3	Mo	Check Sample No.	WO_3	Mo	Check Sample No.	WO_3	Mo	Check Sample No.	WO_3	Mo	
D4775	0.85		D5035	0.67		D5036	0.96		D5037	0.80		

GEOPEKO LIMITED - KING ISLAND

GEOLOGICAL LOG

D.D.H. No. D 020/1

0 - 17.0 **B LENS**

A variety of B lens hornfels subdivided as below:

0 - 9.0 biotite pyroxene hornfels
A barren, dominantly bh with approximately 10% green ph interbeds.

9.0 - 14.3 tuffite (?)
A barren massive grey green rock. Not hornfels texture and no apparent bedding.

14.3 - 17.0 garnet pyroxene hornfels
Pyroxene rich andradite and grossular garnet skarn. Moderate disseminated Scheelite 14.3 - 16.6.

17.0 - 26.8 **BIOTITE HORNFELS**

Barren grey brown bh.
Broken ground at 20.3 - 21.3.

26.8 - 32.0 **PYROXENE GARNET HORNFELS**

Mostly a pale green pyroxene rock with calcite ovoids. Below 30m the texture is more mottled green and brown pyroxene and grossular garnet.
Occasional specks of scheelite throughout - suboregrade.
The unit is moderately broken but nothing that is obviously a fault.

32.0 - 40.6 **GARNET PYROXENE HORNFELS**

This unit is also moder ately broken with no obvious faulting.
A fine grained pyroxene rich andradite and grossular garnet skarn to approximately 37m, mostly unmineralised above 36.5m.
Below 37m the unit is bedded and vaguely familiar with lower C lens/banded footwall beds. The bedding is often distorted. Minor disseminated scheelite 36.5 - 40m.
There is minor brecciation and some evidence of shearing at the base of this unit which may represent a fault.

40.6 - 50.0 **BANDED BIOTITE PYROXENE HORNFELS**

Dominantly a thinly bedded bh/ph typical of the basal hornfels sequence.
Below 46m pyroxene becomes more prominent and some grossular garnet appears. Previously uniform bedding disappears below 46m.
Minor diseminated scheelite 49.8 - 50.0.

GEOPEKO LIMITED - KING ISLAND

GEOLOGICAL LOG

D.D.H. No. D 020/1

49.3 - 49.5 shows evidence of brecciation and montmorillonite on fracture surfaces. - possible Fault.

50.0 - 53.0 MARBLE

Predominantly a barren grey ch. No apparent bedding. Unit is very disturbed and often a carbonate recemented breccia between 52 - 53m which may indicate nearness of No.3 Fault.

53.0 E.O.H.

GEOLOGY - KING ISLAND SCHEELITE

LOG OF D.D.H. No. D 000/13

PLANNING

PROPOSER: R. E. S. Davies DEPTH: 15 m

LOCATION: H10 Pit Dag Lower Access

PURPOSE OF HOLE: Test Pit Dag Orebody

PROPOSED CO-ORDS: 220 000 E 564 005 N

INCLINATION: +40°

BEARING: 360° °GRID °MAG

TARGET: E N

DEPTH:

CHECKED BY: DATE:

SURVEY

SURVEY CO-ORDS: E N

SURVEYED BEARING: 0° 39' °GRID °MAG

SURVEYED IN BY: DATE:

ACTUAL CO-ORDS: 220 001.7 E 564 006.6 N

R.L. OF COLLAR: -191.6

INCLINATION OF HOLE: +39° 58'

PICKED UP BY: R. Howman DATE: 9/6/81

SUMMARY

LOGGED BY: R. E. S. Davies

RESULTS: 11 - 14 m, 3 m @ 0.46% WO_3 L/C Southern Orebody

DRILLING

DATE COMMENCED: 29/5/81 DATE TERMINATED: 30/5/81

DRILLER/CONTRACTOR: S. Batchelor/A.D.D.

CASING: SIZE:
DEPTH:

CORE: SIZE: 46TT
DEPTH:

WEDGE PLACED: DEPTH: PROPOSER:

EXTENSION:

FINAL DEPTH: 19 m

REASON FOR TERMINATION: Passed through ore bearing section

CONDITION OF HOLE ON COMPLETION:

CASING:

CEMENTED:

BORE HOLE SURVEY: No

WATER:

COMMENTS ON DRILLING CONDITIONS:

GEOLOGY - KING ISLAND SCHEELITE

CORE RECOVERY

D.D.H. No. D 000/13

INTERVAL (m)	LENGTH (m)	LENGTH RECOVERED (m)	% CORE RECOVERY
0.0 - 2.3	2.3	2.3	100
2.3 - 3.5	1.2	1.1	92
3.5 - 5.5	2.0	2.0	100
5.5 - 6.6	1.1	1.1	100
6.6 - 8.5	1.9	1.9	100
8.5 - 11.5	3.0	2.9	97
11.5 - 14.5	3.0	3.0	100
14.5 - 16.5	2.0	2.0	100
16.5 - 19.0	2.5	2.5	100

GEOLOGY - KING ISLAND SCHEELITE

ASSAY DATA

D.D.H. No. D 000/13

SAMPLE NO.	DEPTH (METRES)				ELEMENTS			COMMENTS
	From	To	Length	Length Rec.	WO_3	Mo		
D 13292	0	1	1.0	1.0	0.07			
93	1	2	"	"	0.39			
94	2	3	"	"	0.15			
95	3	4	"	"	0.17			
96	4	5	"	"	0.23			
97	5	6	"	"	0.10			
98	6	7	"	"	0.35			
99	7	8	"	"	0.16			
300	8	9	"	"	0.13			
01	9	10	"	"	0.20			
02	10	11	"	"	0.15			
03	11	12	"	"	0.49			
04	12	13	"	"	0.21			
05	13	14	"	"	0.69			
06	14	15	"	"	0.18			
07	15	16	"	"	0.13			
08	16	17	"	"	0.09			
09	17	18	"	"	0.11			
10	18	19	"	"	0.10			

SPECIFIC GRAVITY

Depth (metres):

Rock Type:

S.G.:

Determined by:

GEOLOGY - KING ISLAND SCHEELITE

GEOLOGICAL LOG

D.D.H. No. D 000/13

0.0 - 19.0 m BANDED FOOTWALL BEDS (MINERALISED)

Essentially this is one unit although it has quite a high percentage of andradite skarn beds for the first 14 m (about 40%) but this decreases to about 10% in the last 5 m.

Mineralisation of the skarn is not good, usually erratic and overall the unit is probably just sub grade.

Several areas of broken core are present: 3 - 3.5 m, 6.6 m, 8.3 m, 10 - 11 m, 13 m, and the region from 15 - 17.5 m is mostly broken into fragments of 3 - 10 cm size. No marked lithological changes suggest that these areas do not represent significant faults.

The interval from 14.5 - 17.5 m is almost entirely biotite hornfels/pyroxene hornfels, from 17.5 - 19 m some grossular garnet with minor andradite is present.

Bedding	is	@	42°	to LCA	@ 2.3 m
"			50	"	4.0 m
"			30	"	7.0 m
"			47	"	12.0 m
"			35	"	14.0 m
"			17	"	15.5 m

disturbed in the last 3 m

EOH 19.0 m

GEOLOGY - KING ISLAND SCHEELITE

LOG OF D.D.H. No. D 000/12

PLANNING

PROPOSER: R. E. S. Davies DEPTH: 35 m

LOCATION: H10 Pit Dag Lower Access

PURPOSE OF HOLE: Test Pit Dag Orebody

PROPOSED CO-ORDS: 220 000 E 564 005 N

INCLINATION: +90°

BEARING: - °GRID °MAG

TARGET: E N

DEPTH:

CHECKED BY: DATE:

SURVEY

SURVEY CO-ORDS: E N

SURVEYED BEARING: 0° °GRID °MAG

SURVEYED IN BY: DATE:

ACTUAL CO-ORDS: 220 002.0 E 564 005.1 N

R.L. OF COLLAR: 191.4

INCLINATION OF HOLE: +90°

PICKED UP BY: R. Howman DATE: 9/6/81

SUMMARY

LOGGED BY: R. E. S. Davies

RESULTS: No economic mineralisation

DRILLING

DATE COMMENCED: 27/5/81 DATE TERMINATED: 28/5/81

DRILLER/CONTRACTOR: S. Batchelor/A.D.D.

CASING: SIZE:
DEPTH:

CORE: SIZE: 46TT
DEPTH:

WEDGE PLACED: DEPTH: PROPOSER:

EXTENSION:

FINAL DEPTH: 19.6 m

REASON FOR TERMINATION: Passed through mineralised zone

CONDITION OF HOLE ON COMPLETION:

CASING:

CEMENTED:

BORE HOLE SURVEY: No

WATER:

COMMENTS ON DRILLING CONDITIONS:

GEOLOGY - KING ISLAND SCHEELITE

CORE RECOVERY

D.D.H. No. D 000/12

INTERVAL (m)	LENGTH (m)	LENGTH RECOVERED (m)	% CORE RECOVERY
0.0 - 1.1	1.1	0.9	82
1.1 - 2.5	1.4	1.4	100
2.5 - 4.7	2.2	2.2	100
4.7 - 7.6	2.9	2.9	100
7.6 - 10.6	3.0	3.0	100
10.6 - 13.6	3.0	3.0	100
13.6 - 16.6	3.0	3.0	100
16.6 - 19.6	3.0	3.0	100
EOH 19.6 m			

GEOLOGY - KING ISLAND SCHEELITE

ASSAY DATA

D.D.H. No. D 000/12

SAMPLE NO.	DEPTH (METRES)				ELEMENTS			COMMENTS
	From	To	Length	Length Rec.	WO_3	Mo		
D 13281	2	3	1.0	1.0	0.23			
82	3	4	"	"	0.47			
83	5	6	"	"	0.19			
84	8	9	"	"	0.36			
85	9	10	"	"	0.15			
86	10	11	"	"	0.07			
87	11	12	"	"	0.21			
88	12	13	"	"	1.07			
89	13	14	"	"	0.26			
90	14	15	"	"	0.15			
91	15	16	"	"	0.10			

SPECIFIC GRAVITY

Depth (metres):

Rock Type:

S.G.:

Determined by:

GEOLOGY - KING ISLAND SCHEELITE

GEOLOGICAL LOG

D.D.H. No. D 000/12

Summary

0.0 - 8.3 m	Banded Footwall Beds (mineralised)
8.3 - 8.7	Garnet Hornfels
8.7 - 16.2	Pyroxene Garnet Hornfels
16.2 - 19.6	Biotite Hornfels

0.0 8.3 m BANDED FOOTWALL BEDS (MINERALISED)

This unit is dominated by biotite hornfels veined with thin pyroxene hornfels stringers, small beds or pods of marble, and garnet hornfels (andradite and grossular occur) from 2.3 - 3.5 m and 5.7 - 6.0 m. Erratic mineralisation is present in these areas.

Bedding is @ 55° to LCA @ 3 m
" 30 7.3 m

In most of the places the bedding appears to be disturbed. Good competant ground.

8.3 - 8.7 m GARNET HONRFELS

A narrow band of fine grained khaki brown andradite garnet skarn which is well mineralised. Both upper and lower contact and stratigraphic.

8.7 - 16.2 PYROXENE GARNET HORNFELS (MINERALISED)

Initially andradite rich and quite disturbed and fairly well mineralised it becomes a pyroxene rich after 11 m and grade decreases eventally becoming barren at 15.5 m.

The ground is good and competant. The first 2 m of the unit are rich in sulphide - pyrite and possibly chalcopyrite.

16.2 - 19.6 BIOTITE HORNFELS

Fine grained massive, homogeneous biotite hornfels. There is a sharp, faulted contact, 10 cm wide with the pyroxene biotite hornfels.

EOH 19.6 m

GEOLOGY - KING ISLAND SCHEELITE

LOG OF D.D.H. No. D 000/11

PLANNING

PROPOSER: R.E.S. Davies DEPTH: 20 m

LOCATION: M9 Pit Dag Lower Access

PURPOSE OF HOLE: Test Southern Orebody

PROPOSED CO-ORDS: 220 000 E 563 996 N

INCLINATION: 0°

BEARING: 180° °GRID °MAG

TARGET: E N

DEPTH:

CHECKED BY: DATE:

SURVEY

SURVEY CO-ORDS: E N

SURVEYED BEARING: 182° 05' °GRID °MAG

SURVEYED IN BY: DATE:

ACTUAL CO-ORDS: 219 998.7 E 563 992.4 N

R.L. OF COLLAR: -195.1

INCLINATION OF HOLE: -88° 10' (from vertical)

PICKED UP BY: J. Cook DATE: 27.5.81

SUMMARY

LOGGED BY: R. E. S. Davies

RESULTS:

DRILLING

DATE COMMENCED: 18/5/81 DATE TERMINATED: 18/5/81

DRILLER/CONTRACTOR: S. Batchelor/A.D.D.

CASING: SIZE:
DEPTH:

CORE: SIZE: 46TT
DEPTH:

WEDGE PLACED: DEPTH: PROPOSER:

EXTENSION:

FINAL DEPTH: 14.0 m

REASON FOR TERMINATION: In Biotite Hornfels

CONDITION OF HOLE ON COMPLETION:

CASING:

CEMENTED:

BORE HOLE SURVEY: Not Surveyed

WATER:

COMMENTS ON DRILLING CONDITIONS:

GEOLOGY - KING ISLAND SCHEELITE

CORE RECOVERY

D.D.H. No. D 000/11

INTERVAL (m)	LENGTH (m)	LENGTH RECOVERED (m)	% CORE RECOVERY
0.0 - 1.2	1.2	0.9	75
1.2 - 2.5	1.3	1.3	100
2.5 - 5.5	3.0	3.0	100
5.5 - 8.5	3.0	3.0	100
8.5 - 11.5	3.0	3.0	100
11.5 - 14.0	2.5	2.5	100
EOH 14.0 m			

GEOLOGY - KING ISLAND SCHEELITE

GEOLOGICAL LOG

D.D.H. No. D 000/11

Summary

0.0 - 5.6 m Garnet Pyroxene Hornfels/Marble
5.6 - 14.0 m Biotite Hornfels

0.0 - 5.6 m GARNET PYROXENE CALC HORNFELS

This unit is sparsley mineralised to 4.1 m, and is sub grade. Initially the rock is a fractured, structurally disorded garnet pyroxene hornfels to 1.4 m. This is followed by a strong, competant unit of intimately mixed fine grained ?andradite and pyroxene in a structureless unit. This lasts until 2.3 m and is followed by a more normal fine grained andradite skarn to 2.9 m. This is weakly mineralised.

A poorly mineralised marble bed is present to 4.1 m followed by a 60 cm biotite hornfels bed.

The last 70 cm is a pale grey fine grained rock with a moderately high silica content and contains small (1 mm) black flecks, possibly a tuffite?

5.6 - 14.0 m BIOTITE HORNFELS

Fine grained, black homogeneous, competant biotite hornfels 60 cm sticks.

EOH 14.0 m

GEOLOGY - KING ISLAND SCHEELITE

LOG OF D.D.H. No. D 000/10

PLANNING

PROPOSER: R. E. S. Davies DEPTH: 45 m

LOCATION: H10 Pit Dag Lower Access

PURPOSE OF HOLE: Test Pit Dag Orebody

PROPOSED CO-ORDS: 220 000 E 563 996 N

INCLINATION: +48°

BEARING: 360° °GRID °MAG

TARGET: E N

DEPTH:

CHECKED BY: DATE:

SURVEY

SURVEY CO-ORDS: E N

SURVEYED BEARING: 2° 34' °GRID °MAG

SURVEYED IN BY: DATE:

ACTUAL CO-ORDS: 219 998.4 E 563 995.6 N

R.L. OF COLLAR: -192.3

INCLINATION OF HOLE: 39° 06' from vertical (up)

PICKED UP BY: J. Cook DATE: 27/5/81

SUMMARY

LOGGED BY: R. E. S. Davies

RESULTS: 7 - 16 m, 9 m @ 1.50% WO_3 Southern Orebody

DRILLING

DATE COMMENCED: 17/5/81 DATE TERMINATED: 20/5/81

DRILLER/CONTRACTOR: S. Batchelor/A.D.D.

CASING: SIZE:
DEPTH:

CORE: SIZE: 46TT
DEPTH:

WEDGE PLACED: DEPTH: PROPOSER:

EXTENSION:

FINAL DEPTH: 39.0 m

REASON FOR TERMINATION: Passed through orebody

CONDITION OF HOLE ON COMPLETION:

CASING:

CEMENTED:

BORE HOLE SURVEY: M/S

WATER:

COMMENTS ON DRILLING CONDITIONS:

GEOLOGY - KING ISLAND SCHEELITE

SUMMARY BORE HOLE SURVEY DATA

D.D.H. No. D 000/10

Surveyed method: M/S
Final depth: 39 m
Casing depth: 1 m

Depth surveyed to: 35.0 m
Date surveyed: 26/7/81
Surveyed by: C. O'Brien
Checked by:

Bearing			Inclination		True Vertical Depth (m)	Co-ordinates	
Depth (m)	Grid	Mag.	Read	Corr.			
0.0	2.57			39.10°	0.0		
10.0	1.00	S9° E	37° 30'	37.50	7.76		
19.0	359.75	S10° 15E	38°	38.00	14.90		
35.0	359.00	S11° E	37° 30'	37.50	27.51		

REMARKS:

GEOLOGY - KING ISLAND SCHEELITE

CORE RECOVERY

D.D.H. No. D 000/10

INTERVAL (m)	LENGTH (m)	LENGTH RECOVERED (m)	% CORE RECOVERY
0.0 - 1.1	1.1	1.0	91
1.1 - 3.0	1.9	1.9	100
3.0 - 6.0	3.0	3.0	100
6.0 - 10.2	4.2	4.2	100
10.2 - 13.2	3.0	3.0	100
13.2 - 16.0	2.8	2.8	100
16.0 - 16.4	0.4	0.4	100
16.4 - 19.4	3.0	3.0	100
19.4 - 22.4	3.0	3.0	100
22.4 - 25.4	3.0	3.0	100
25.4 - 28.1	2.7	2.7	100
28.1 - 30.0	1.9	1.7	89
30.0 - 33.0	3.0	3.0	100
33.0 - 36.0	3.0	3.0	100
36.0 - 39.0	3.0	3.0	100
EOH 39.0 m			

GEOLOGY - KING ISLAND SCHEELITE

ASSAY DATA

D.D.H. No. D 000/10

SAMPLE NO.	DEPTH (METRES)				ELEMENTS			COMMENTS
	From	To	Length	Length Rec.	WO_3	Mo		
D 13258	0	1	1.0	1.0	0.17			
59	1	2	"	"	0.10			
60	2	3	"	"	0.08			
61	3	4	"	"	0.13			
62	4	5	"	"	0.68			
63	5	6	"	"	0.07			
64	6	7	"	"	0.24			
65	7	8	"	"	0.39			
66	8	9	"	"	1.04			
67	9	10	"	"	0.69			
68	10	11	"	"	1.08			
69	11	12	"	"	0.78			
70	12	13	"	"	4.07			
71	13	14	"	"	3.26			
72	14	15	"	"	1.70			
73	15	16	"	"	0.57			
74	16	17	"	"	0.20			
75	17	18	"	"	0.31			
76	18	19	"	"	0.24			
77	19	20	"	"	0.07			
78	20	21	"	"	0.13			
79	21	22	"	"	0.10			
80	22	23	"	"	0.08			

SPECIFIC GRAVITY

Depth (metres):

Rock Type:

S.G.:

Determined by:

GEOLOGY - KING ISLAND SCHEELITE

GEOLOGICAL LOG

D.D.H. No. D 000/10

Summary

0.0 - 6.7 m	BFB (m)
6.7 - 15.3	gh
15.3 - 35.4	pgh
35.4 - 39.0	bh

0.0 - 6.7 m BANDED FOOTWALL BEDS (MINERALISATED)

Well bedded, poorly mineralised, (sub-grade) banded footwall beds, consisting mostly of unreplaced marble with subsidiary biotite hornfels and minor pyroxene hornfels. Garnets, both grossular and andradite are rarely present.

Bedding is @	45°	to LCA @ 1.8 m
"	45	2.9
"	50	6.4

The ground is competant throughout with stick up to 60 cm, average is 30 cm.

6.7 - 15.3 GARNET HORNFELS

Massive, homogeneous well mineralised, khaki brown andradite garnet skarn. Coarse andradite crystals (5 mm) are present from about 11 - 14 m this is where the highest grade is, probably 1.5%.

Average grade for the unit is probably 1%.

The ground is competant throughout apart from a few parting from 11 - 13 cm which results in the core being in 15 cm in lengths.

Vague banding can be discerned at about 9 m and runs at 40° to LCA.

15.3 - 35.4 PYROXENE GARNET HORNFELS

A well podded, mostly pale green coloured unit.

Weak and erratic mineralisation is present to about 23 m, beyond that the unit is barren, though scattered flecks of scheelite can be seen between 30 and 34 m.

The ground is a little broken at the base of the unit and small areas of broken core 5 cm long occur occasionally elsewhere.

Mostly the core is good, competant rock, with sticks averaging 30 cm.

The dominant lithology is pyroxene hornfels and marble clasts seem to become more frequent up the unit and are closely associated with grossular garnet.

All contacts are stratigraphic.

GEOLOGY - KING ISLAND SCHEELITE

GEOLOGICAL LOG

D.D.H. No. D 000/10

35.4 - 39.0 m BIOTITE HORNFELS

Massive, homogeneous, dark fine grained, competant biotite hornfels.

Bedding is @ 55° to LCA @ 37 m
" 60 39 m

EOH 39 m

GEOLOGY - KING ISLAND SCHEELITE

LOG OF D.D.H. No. D 000/9

PLANNING

PROPOSER: R. E. S. Davies DEPTH: 30 m

LOCATION: H10 Pit Dag Lower Access

PURPOSE OF HOLE: Test Pit Dag Orebody

PROPOSED CO-ORDS: 220 000 E 563 996 N

INCLINATION: -45°

BEARING: 360 °GRID °MAG

TARGET: E N

DEPTH:

CHECKED BY: DATE:

SURVEY

SURVEY CO-ORDS: E N

SURVEYED BEARING: 1° 42' °GRID °MAG

SURVEYED IN BY: DATE:

ACTUAL CO-ORDS: 219 998.5 E 563 995.8 N

R.L. OF COLLAR: -196.3

INCLINATION OF HOLE: 131° 05'

PICKED UP BY: J. Cook DATE: 27/5/81

SUMMARY

LOGGED BY: R. E. S. Davies

RESULTS: No economic mineralisation

DRILLING

DATE COMMENCED: 17.5.81 DATE TERMINATED: 17,5,81

DRILLER/CONTRACTOR: S. Batchelor/A.D.D.

CASING: SIZE:
DEPTH:

CORE: SIZE: 46TT
DEPTH:

WEDGE PLACED: DEPTH: PROPOSER:

EXTENSION:

FINAL DEPTH: 21.1 m

REASON FOR TERMINATION: In quartzites

CONDITION OF HOLE ON COMPLETION:

CASING:

CEMENTED:

BORE HOLE SURVEY: No

WATER:

COMMENTS ON DRILLING CONDITIONS:

GEOLOGY - KING ISLAND SCHEELITE

CORE RECOVERY

D.D.H. No. D 000/9

INTERVAL (m)	LENGTH (m)	LENGTH RECOVERED (m)	% CORE RECOVERY
0.0 - 2.7	2.7	2.6	96
2.7 - 4.4	1.7	1.6	94
4.4 - 5.0	1.6	1.6	100
5.0 - 6.1	1.1	1.0	91
6.1 - 9.1	3.0	3.0	100
9.1 - 12.1	3.0	3.0	100
12.1 - 15.1	3.0	3.0	100
15.1 - 18.1	3.0	3.0	100
18.1 - 21.1	3.0	3.0	100
EOH 21.1 m			

GEOLOGY - KING ISLAND SCHEELITE

ASSAY DATA

D.D.H. No. D 000/9

SAMPLE NO.	DEPTH (METRES)				ELEMENTS			COMMENTS
	From	To	Length	Length Rec.	WO_3	Mo		
D 13229	0	1	1.0	1.0	0.20			
30	1	2	"	"	0.13			
31	2	3	"	"	0.08			
32	3	4	"	"	0.26			

SPECIFIC GRAVITY

Depth (metres):

Rock Type:

S.G.:

Determined by:

GEOLOGY - KING ISLAND SCHEELITE

GEOLOGICAL LOG

D.D.H. No. D 000/9

Summary

0.0 - 4.0 m	gh (b)
4.0 - 20.2	bfb
20.2 - 21.1	q

0.0 - 4.0 m BANDED GARNET HORNFELS

Well bedded garnet hornfels interbedded with pyroxene hornfels and grossular interbeds. Units range from 1 cm (pyroxene hornfels) to 15 cm (garnet hornfels) thick. The rock is competant but a number of partings occur from 2 - 3 m (about 1 every 10 cm).

Mineralisation is not good and the unit is probably subgrade.

Bedding is @ 40° to LCA @ 3.0 m

4.0 - 20.2 BANDED FOOTWALL BEDS

Well interbedded mixture of dominantly biotite hornfels with subsidiary pyroxene hornfels and minor garnet hornfels and marble.

Layers range from 1 - 20 cm typically 5 cm.

The ground is mostly good with partings @ 15 cm intervals except for 4 - 5 m where the rock is well fractured into fragments of 1 - 10 cm diameter and are mostly slickenslide covered. A small amount of thin clay covered fault rubble is present at 5 m.

Scheelite mineralisation associated with garnet hornfels layers occurs @ 7 m, 8.9 m, 11.6 m, 12.4 m, 12.7 m, 12.9 m, 13.1 m, 16 m, 17 m, 19 m and 20 m. The last bit is contained in a thin vein at 10 cm above the base of the marble which directly overlies the quartzites. This marble is 1 cm thick.

Bedding	is	@	55°	to	LCA	@ 6.3 m
"			75			9
"			55			12.5
"			85			15.5

20.2 - 21.1 QUARTZITES

Hard, fine grained, siliceous, homogenous quartzites. Metamorphic spotting is present.

EOH 21.1 m

GEOLOGY - KING ISLAND SCHEELITE

LOG OF D.D.H. No. D 000/8

PLANNING

PROPOSER: R. E. S. Davies DEPTH: 65 m

LOCATION: H10 Pit Dag Lower access

PURPOSE OF HOLE: Test Southern Orebody.

PROPOSED CO-ORDS: 220 000 E 563 996 N

INCLINATION: -45°

BEARING: 180° °GRID °MAG

TARGET: E N

DEPTH:

CHECKED BY: DATE:

SURVEY

SURVEY CO-ORDS: E N

SURVEYED BEARING: 181° 26' °GRID °MAG

SURVEYED IN BY: DATE:

ACTUAL CO-ORDS: 219 998.8 E 563 993.7 N

R.L. OF COLLAR: -196.3

INCLINATION OF HOLE: 134° 09'

PICKED UP BY: J. Cook DATE: 27/5/81

SUMMARY

LOGGED BY: R. E. S. Davies

RESULTS: 9 - 11 m 2 m @ 0.37% WO_3
21 - 22 m 1 m @ 0.49% WO_3
41 - 42 m 1 m @ 0.58% WO_3

DRILLING

DATE COMMENCED: 18.5.81 DATE TERMINATED: 20.5.81

DRILLER/CONTRACTOR: S. Batchelor/A.D.D.

CASING: SIZE:
DEPTH:

CORE: SIZE: 46TT
DEPTH:

WEDGE PLACED: DEPTH: PROPOSER:

EXTENSION:

FINAL DEPTH: 56.7 m

REASON FOR TERMINATION: In granite

CONDITION OF HOLE ON COMPLETION:

CASING:

CEMENTED:

BORE HOLE SURVEY: M/S

WATER:

COMMENTS ON DRILLING CONDITIONS:

GEOLOGY - KING ISLAND SCHEELITE

SUMMARY BORE HOLE SURVEY DATA

D.D.H. No. D 000/8

Surveyed method: Multishot
Final depth: 56.7 m
Casing depth: 1.0 m

Depth surveyed to: 52.0 m
Date surveyed: 26/5/81
Surveyed by: C. O'Brien
Checked by:

Bearing			Inclination		True Vertical Depth (m)	Co-ordinates	
Depth (m)	Grid	Mag.	Read	Corr.			
0.0	181.43			134.15			
10.0	180.00	S 10° E	43° 45'	136.25	6.97		
19.0	180.00	S 10° E	44°	136.0	13.47		
28.0	180.0	S 10° E	44°	136.0	19.94		
34.0	180.0	S 10° E	44°	136.0	24.26		
43.0	180.0	S 10° E	43° 45'	136.25	30.73		
52.0	180.0	S 10° E	43° 45'	136.25	37.23		

REMARKS:

GEOLOGY - KING ISLAND SCHEELITE

CORE RECOVERY

D.D.H. No. D 000/8

INTERVAL (m)	LENGTH (m)	LENGTH RECOVERED (m)	% CORE RECOVERY
0.0 - 1.2	1.2	0.9	75
1.2 - 3.0	1.8	1.8	100
3.0 - 4.5	1.5	1.5	100
4.5 - 7.2	2.7	2.4	89
7.2 - 10.2	3.0	3.0	100
10.2 - 13.2	3.0	3.0	100
13.2 - 16.2	3.0	3.0	100
16.2 - 19.2	3.0	3.0	100
19.2 - 22.2	3.0	3.0	100
22.2 - 25.2	3.0	3.0	100
25.2 - 28.2	3.0	3.0	100
28.2 - 31.2	3.0	3.0	100
31.2 - 34.2	3.0	3.0	100
34.2 - 37.2	3.0	3.0	100
37.2 - 38.7	1.5	1.5	100
38.7 - 41.7	3.0	3.0	100
41.7 - 44.7	3.0	3.0	100
44.7 - 47.7	3.0	3.0	100
47.7 - 50.7	3.0	3.0	100
50.7 - 53.7	3.0	3.0	100
53.7 - 51.7	3.0	3.0	100
EOH 56.7 m			

GEOLOGY - KING ISLAND SCHEELITE

ASSAY DATA

D.D.H. No. D 000/8

SAMPLE NO.	DEPTH (METRES)				ELEMENTS			COMMENTS
	From	To	Length	Length Rec.	WO_3	Mo		
D 13233	9	10	1.0	1.0	0.30			
34	10	11	"	"	0.44			
35	13	14	"	"	0.12			
35	14	15	"	"	0.08			
37	20	21	"	"	0.12			
38	21	22	"	"	0.49			
39	41	42	"	"	0.58			

SPECIFIC GRAVITY

Depth (metres):

Rock Type:

S.G.:

Determined by:

GEOLOGY - KING ISLAND SCHEELITE

GEOLOGICAL LOG

D.D.H. No. D 000/8

Summary

0.0 - 54.0 m BFB (m)
54.0 - 56.7 m Granite

0.0 - 54.0 m BANDED FOOTWALL BEDS (MINERALISED)

At first glance this unit appears to be banded garnet hornfels having a high percentage of khaki brown andradite garnet skarn beds interbedded with subsidiary pyroxene hornfels and minor biotite hornfels, marble and grossular garnet.

However most of the garnet hornfels are barren and scheelite mineralisation is localised to small patchy areas. The unit is thus subgrade.

Little andradite garnet is present below 23 m, biotite becomes more dominant and grossular garnet is often present. However mineralisation occurs throughout the unit, notably at 0.5 m, 10.5 - 11 m, 13 - 15.4 m, 20.2 - 22 m, 37 m, 34 m, 40.5 m, 41.9 m, 43.5 m, 47.9 m, 54 m.

The rock is competant throught with good runs (see core recovery), sticks commonly 60 cm long. Local broken core occurs @ 30.5 m (20 cm of 5 cm pieces) 44.7 m,

Bedding is @	15°	to LCA @ 3.5 m
"	30	7.7
"	0	11
"	50	13.5
"	35	16.5
"	50	21
"	55	26
"	30	35.5
"	30	36.5
"	45	39.8
"	30	45.7
"	0	53

54.0 - 56.7 GRANITE

Fresh coarse grained pink granite - intrusive contact, good competant un-fractures ground.

EOH 56.7 m

GEOLOGY - KING ISLAND SCHEELITE

LOG OF D.D.H. No. D 000/7

PLANNING

PROPOSER: R. E. S. Davies DEPTH:

LOCATION: M9 Pit Dag

PURPOSE OF HOLE: Test Pit Dag

PROPOSED CO-ORDS: 220 000 E 563 996 N

INCLINATION: -90°

BEARING: 0° °GRID °MAG

TARGET: E N

DEPTH:

CHECKED BY: DATE:

SURVEY

SURVEY CO-ORDS: E N

SURVEYED BEARING: 59° 34' °GRID °MAG

SURVEYED IN BY: DATE:

ACTUAL CO-ORDS: 219 998.8 E 563 994.9 N

R.L. OF COLLAR: -196.23

INCLINATION OF HOLE: -86° 25'

PICKED UP BY: J. Cook DATE: 13/5/81

SUMMARY

LOGGED BY: R. E. S. Davies

RESULTS: No economic mineralisation bfb

DRILLING

DATE COMMENCED: 13/5/81 DATE TERMINATED: 14/5/81

DRILLER/CONTRACTOR: S. Batchelor/A.D.D.

CASING: SIZE:
DEPTH:

CORE: SIZE: BQ
DEPTH:

WEDGE PLACED: DEPTH: PROPOSER:

EXTENSION:

FINAL DEPTH: 38.0 m

REASON FOR TERMINATION: In granite

CONDITION OF HOLE ON COMPLETION:

CASING:

CEMENTED:

BORE HOLE SURVEY: M.S.

WATER:

COMMENTS ON DRILLING CONDITIONS:

GEOLOGY - KING ISLAND SCHEELITE

SUMMARY BORE HOLE SURVEY DATA

D.D.H. No. D 000/7

Surveyed method: Multishot
Final depth: 38.0 m
Casing depth: Nil

Depth surveyed to: 37.0 m
Date surveyed: 26/5/81
Surveyed by: C. O'Brien
Checked by:

Bearing			Inclination		True Vertical Depth (m)	Co-ordinates	
Depth (m)	ISG Grid	Mag.	Read	Corr.			
0.0	59.57			176.42			
10.0	264.00	S 74° W	23°	157.0	9.98		
19.0	264.0	S 74° W	23	157.0	18.26		
28.0	264.0	S 74° W	23	157.0	26.55		
37.0	265.0	S 75° W	23	157.0	35.75		
	SURVEY IS SUSPECT						

REMARKS:

GEOLOGY - KING ISLAND SCHEELITE

CORE RECOVERY

D.D.H. No. D 000/7

INTERVAL (m)	LENGTH (m)	LENGTH RECOVERED (m)	% CORE RECOVERY
0.0 - 1.08	1.08	1.0	93
1.08 - 3.3	2.22	2.2	99
3.3 - 5.0	1.7	1.7	100
5.0 - 8.0	3.0	3.0	100
8.0 - 11.0	3.0	3.0	100
11.0 - 12.5	1.5	1.5	100
12.5 - 15.5	3.0	3.0	100
15.5 - 18.5	3.0	3.0	100
18.5 - 21.5	3.0	3.0	100
21.5 - 24.5	3.0	3.0	100
24.5 - 26.7	2.2	2.2	100
26.7 - 29.5	2.8	2.7	96
29.5 - 32.1	2.6	2.6	100
32.1 - 34.0	1.9	1.9	100
34.0 - 36.2	2.2	2.1	95
36.2 - 38.0	1.8	1.0	56
EOH 38.0 m			

GEOLOGY - KING ISLAND SCHEELITE

ASSAY DATA

D.D.H. No. D 000/7

SAMPLE NO.	DEPTH (METRES)				ELEMENTS			COMMENTS
	From	To	Length	Length Rec.	WO_3	Mo		
D 13224	0	1	1.0	1.0	0.12			
25	1	2	"	"	0.13			
26	2	3	"	"	0.30			
27	3	4	"	"	0.13			
28	4	5	"	"	0.19			

SPECIFIC GRAVITY

Depth (metres):
Rock Type:
S.G.:

Determined by:

GEOLOGY - KING ISLAND SCHEELITE

GEOLOGICAL LOG

D.D.H. No. D 000/17

Summary

0.0 - 4.4 m	BFB (m)
4.4 - 9.1 m	BFB
9.1 - 10.5	Acid Dyke
10.5 - 26.4	BFB
26.4 - 34.4	Quartzite
34.4 - 38.0	Granite/Aplite

0.0 - 4.4 m BANDED FOOTWALL BEDS (MINERALISED)

Well, but generally thinly (1 - 10cm) bedded garnet hornfels/ pyroxene hornfels with subordinate biotite hornfels. The garnet hornfels beds are only moderately mineralised and overall the unit is probably sugrade.

The core is competant (20 - 40 cm sticks)

Bedding is @ 45° to LCA @ 3.0 m

4.4 - 9.1 BANDED FOOTWALL BEDS

Well bedded sequence of biotite hornfels, pyroxene hornfels, marble and garnet hornfels in that order. It is unmineralised. Beds are from 1 - 30 cm thick.

Bedding is @ 55° to LCA @ 6.3 m

9.1 - 10.5 LAMPROPHYRE DYKE

Homogeneous, fine grained pale grey rock with diffuse contacts with biotite hornfels at either end.

Again a very competant rock.

10.5 - 26.4 BANDED FOOTWALL BEDS

As for the previous unit but this is almost entirely biotite hornfels and pyroxene hornfels. Small garnet hornfels layers occur @ 16.8 m, 17 m and 19.1 m, 19.5 and 21.4 m, with small amounts of scheelite associated with them.

Aplite dyke occurs 23.9 - 24.5 m.

Again a very competent unit.

Bedding is @	45°	to LCA @ 12 m
"	55	17
"	40	25.5 m

The last 2 m are pyroxene hornfels rich and appear disturbed and occassionally fractured but not broken, locally recemented.

GEOLOGY - KING ISLAND SCHEELITE

GEOLOGICAL LOG

D.D.H. No. D 000/7

26.4 - 34.4 m ?QUARTZITE

This unit looks like a silicified biotite hornfels it grades almost imperceptibly into the overlying biotite hornfel and has a fine grained clear grey colour.

Some finely crystalline quartzite veins run through the unit. Whether this unit is silicified biotite hornfels or stratigraphic quartzite is not clear.

From 29 m on it is quite well fractured, 15 cm sticks and is locally recemented with quartzite and clinohumite.

Possible fault @ 30.2 m

34.4 - 38.0 APLITE

This is the characteristic fine grained pink upper contact of the granite and is extensively fractured particularly from 37 m on and is associated with clinhumite.

EOH 38.0 m

GEOLOGY - KING ISLAND SCHEELITE

LOG OF D.D.H. No. D 000/6

PLANNING

PROPOSER: R. E. S. Davies DEPTH: 25 m

LOCATION: M9 Pit Dag Undercut

PURPOSE OF HOLE: Test structure of southern Orebody

PROPOSED CO-ORDS: 220 000 E 563 996 N

INCLINATION: +60°

BEARING: 180° °GRID °MAG

TARGET: E N

DEPTH:

CHECKED BY: DATE:

SURVEY

SURVEY CO-ORDS: E N

SURVEYED BEARING: 186° 00' °GRID °MAG

SURVEYED IN BY: DATE:

ACTUAL CO-ORDS: 219 998.6 E 563 994.1 N

R.L. OF COLLAR: -192.5

INCLINATION OF HOLE: 28° 31'

PICKED UP BY: J. Cook DATE: 27/5/81

SUMMARY

LOGGED BY: R. E. S. Davies

RESULTS: Intersected B Lens

DRILLING

DATE COMMENCED: 8/5/81 DATE TERMINATED: 12/5/81

DRILLER/CONTRACTOR: S. Batchelor/A.D.D.

CASING: SIZE:
DEPTH:

CORE: SIZE: 46TT
DEPTH:

WEDGE PLACED: DEPTH: PROPOSER:

EXTENSION:

FINAL DEPTH: 22.3 m

REASON FOR TERMINATION: Passed through B Lens

CONDITION OF HOLE ON COMPLETION:

CASING:

CEMENTED:

BORE HOLE SURVEY: Not surveyed

WATER:

COMMENTS ON DRILLING CONDITIONS:

GEOLOGY - KING ISLAND SCHEELITE

CORE RECOVERY

D.D.H. No. D 000/6

INTERVAL (m)	LENGTH (m)	LENGTH RECOVERED (m)	% CORE RECOVERY
0.0 - 1.3	1.3	1.1	85
1.3 - 5.4	4.1	4.1	100
5.4 - 7.3	1.9	1.9	100
7.3 - 9.3	2.2	2.2	100
9.3 - 10.3	1.0	1.0	100
10.3 - 12.3	2.0	2.0	100
12.3 - 13.8	1.5	1.5	100
13.8 - 16.3	2.5	2.5	100
16.3 - 19.3	3.0	3.0	100
19.3 - 22.3	3.0	3.0	100
EOH 22.3 m			

GEOLOGY - KING ISLAND SCHEELITE

GEOLOGICAL LOG

D.D.H. No. D 000/6

0.0 - 22.3 m B LENS

Subdivided as follows:

0.0 - 2.8 m Garnet Pyroxene Hornfels

A mixed zone of pyroxene hornfels and grossular garnet and some patches of marble. Small amount of scheelite present @ 0.7 and 1.4 m.

2.8 - 12.0 m Biotite Hornfels

Mostly strong solid core with sticks up to 50 cm. However, the interval from 4.2 - 6.0 m is locally fractured into angular fragments 3 cm diameter. Some thin beds of pyroxene hornfels are rarely present in the unit.

The top and bottom contacts are stratigraphic.

Bedding	is @	50°	to LCA @	6.7 m
"		60°	"	9.0
"		50°		11.8

12.0 - 17.6 m Marble

Pale grey, fresh competant marble, scheelite vein @ 13.4 m.

Bedding	is @	50°	to LCA @	12.8 m
"		45°	"	17.0 m

Core sticks average 40 cm

17.6 - 22.3 m Biotite Hornfels

Black fine grained biotite hornfels. Competant with sticks about 30 cm except for 10 cm of broken core @ 19.3 m and 50 cm of broken core at the end of the hole. This section has fragments of about 3 - 4 cm diameter.

Bedding 40° to LCA @ 21 m

EOH 22.3 m

GEOPEKO LIMITED - KING ISLAND

LOG OF D.D.H. NO. D 000/5

PLANNING

Proposer: **M.J. Danielson** Depth: **85m.**

Location: **G 14 Ramp at 220 000 E.**

Purpose of hole: **Oreblocking of C lens.**

Co-ordinates: **220 000** E **564 090** N
Inclination: **-45°** Magnetic:
Bearing **180°** Grid Target Depth:
Target: E N
Approved by: **M.C. Rogers** Date: **14/1/76**

SURVEY

Survey Co-ords: E N
Survey bearing: **175°00'** Grid Magnetic:
Surveyed in by: Date:
Actual Co-ords: **220 001.0** E **564 087.7** N
R.L. of Collar: **-73.02m.** Inclination of Hole: **-45°10'**
Picked up by: **R.J.H.** Date: **16/2/76**

SUMMARY

Logged by: **M.J. Danielson**
Results: **C lens 56 - 69m, 13m @ 0.67% WO_3**
79 - 82m, 3m @ 0.54% WO_3

DRILLING

Driller/Contractor: **A.D.D.**

Date commenced: **4/2/76** Date terminated: **18/2/76**

Casing: Size:	**BX**			
Depth:	**3m**			
Core: Size:	**NQ**	**BQ**		
Depth:	**3**	**101.2**		

Wedge Runoff:
Wedge placed: **Nil** Depth:
Proposed by: Approved by:
Reason:
Extension: **Nil**
Reason for termination: **Entered Lower Metavolcanics.**

Condition of hole on completion: Final depth: **101.2m.**
Casing: **3m BX remains.**
Cemented: **No Hole making minor water.**
Bore hole survey: **Surveyed to 99m.**
Water: **Small trickle.**

Comments on drilling conditions:

GEOPEKO LIMITED - KING ISLAND

SUMMARY BORE HOLE SURVEY DATA

D.D.H. No. D 000/5

Survey method : Multishot Camera
Final depth : 101.2
Casing depth : 3m

Depth surveyed to 99m.
Date surveyed : 18/2/76
Surveyed by : M.J.D.
Checked by : M.J.D.

Depth (m)	Bearing		Inclination		True vertical Depth (m)	Co-ordinates	
	Grid	Mag.	Read	Corrected		S	E
15	178	168	44	-46	10.79	10.19	2.17
30	179	169	42	-48	21.94	20.04	4.09
45	178	168	41	-49	33.26	29.66	6.14
60	179	169	40	-50	44.75	39.12	7.98
[illegible]	180	170	39.75	-50.25	56.28	48.56	9.64
90	180	170	39	-51	67.94	52.86	11.28
99	180	170	38.5	-51.5	74.98	63.37	12.25

REMARKS:

GEOPEKO LIMITED - KING ISLAND

SUMMARY STRUCTURAL DATA

D.D.H. No. D 000/5

Depth Interval (metres)	Rock Type	Fractures /m.	Joint Angle (wrt LAOC)	Joint Filling	Bedding Angle (w.r.t. L.A.O.C.)	% Core Recovery	R.Q.D.	Remarks (weathering)
0 - 3m	B lens	-		clay		100	17	Mostly rubble 0 - 2m.
3 - 14.5	B lens bh	8		clay carbonate at 7.5. pyrite at 9.0		96	76	
14.4 - 47.5	bh	5		clay		99	83	Possible Fault Carbonate recemented breccia 23.4 - 23.6 37.5 - 37.9 Shear Zone 42.9 - 43.0.
47.5 - 71.5	pgh gh	4		clay		100	90	
71.5 - 80.5	Marker, banded gh	8		clay	74m: 47° 79m: 38°	97	71	Possible Fault 72.7 - 73.0 clay recemented breccia, also slickensides.
80.5 - 92.5	banded gh	4		clay	82m: 30° 88m: 15° 89m: 22°	98	90	
92.5 - 101.2	bh/ph/q	5		clay		88	60	

FURTHER DATA & REMARKS

1. Detailed % core recoveries within each depth interval is shown in the core recovery tabulation.
2. R.Q.D. (rock quality designation) += $\frac{\text{length core >10 cms}}{\text{length drilled}}$ %
3. Core size. 0 - 3m NQ 47.6mms dia
   3 - 101.2 BQ 36.5mms dia

GEOPEKO LIMITED - King Island

CORE RECOVERY

D.D.H. No. D 000/5

INTERVAL (m)	LENGTH (m)	LENGTH RECOVERED (m)	% CORE RECOVERY
0 - 3	3	3	100
5.5	2.5	2.1	84
8.5	3	3	100
11.5	3	3	100
14.5	3	3	100
17.5	3	3.1	103
20.5	3	3	100
23.5	3	3	100
26.5	3	3	100
29.5	3	3	100
32.5	3	3	100
35.5	3	3	100
38.5	3	2.8	93
41.5	3	3	100
44.5	3	2.9	97
47.5	3	3	100
50.5	3	3	100
53.5	3	3	100
56.5	3	3	100
59.5	3	3	100
62.5	3	3	100
65.5	3	3	100
68.5	3	3	100
71.5	3	3	100
74.5	3	2.9	97
77.5	3	3	100
80.5	3	2.85	95
83.5	3	2.9	97
85	1.5	1.5	100
86.5	1.5	1.5	100
89.5	3	3	100
92.5	3	2.9	97
95.5	3	2.1	70
98.5	3	2.9	97
101.2	2.7	2.7	100
E.O.H.			

GEOPEKO LIMITED - DOLPHIN MINE

ASSAY DATA

D.D.H. No. D 000/5

SAMPLE No.	DEPTH (METRES) From	To	Length	Length Recovered	ELEMENTS WO_3	Mo	COMMENTS
D4736	55	56	1.0	1.0	<0.01	<0.01	
7	56	57	1.0	1.0	0.31	<0.01	
8	57	58	1.0	1.0	0.72	0.01	
9	58	59	1.0	1.0	0.47	0.01	
40	59	60	1.0	1.0	0.77	0.02	
1	60	61	1.0	1.0	0.40	<0.01	
2	61	62	1.0	1.0	0.35	<0.01	C lens 56 - 69m
3	62	63	1.0	1.0	1.60	0.04	13m @ 0.67% WO_3
4	63	64	1.0	1.0	0.70	0.02	
5	64	65	1.0	1.0	1.24	0.04	
6	65	66	1.0	1.0	0.90	0.03	
7	66	67	1.0	1.0	0.51	0.02	
8	67	68	1.0	1.0	0.36	0.01	
9	68	69	1.0	1.0	0.35	<0.01	
50	69	70	1.0	1.0	<0.01	<0.01	
1	70	71	1.0	1.0	<0.01	<0.01	
2	71	72	1.0	1.0	<0.01	<0.01	
3	72	73	1.0	1.0	0.68	<0.01	
4	73	74	1.0	1.0	<0.01	<0.01	
5	74	75	1.0	1.0	<0.01	<0.01	
6	75	76	1.0	1.0	0.38	<0.01	
7	76	77	1.0	1.0	0.25	<0.01	
8	77	78	1.0	1.0	<0.01	<0.01	
9	78	79	1.0	1.0	<0.01	<0.01	
60	79	80	1.0	1.0	0.58	<0.01	
1	80	81	1.0	1.0	0.54	<0.01	79 - 82m,
2	81	82	1.0	1.0	0.51	0.01	3m @ 0.54% WO_3
3	82	83	1.0	1.0	0.01	<0.01	
4	83	84	1.0	1.0	<0.01	<0.01	
5	84	85	1.0	1.0	0.17	<0.01	
6	85	86	1.0	1.0	<0.01	<0.01	
7	86	87	1.0	1.0	0.22	<0.01	
8	87	88	1.0	1.0	0.17	<0.01	
9	88	89	1.0	1.0	0.17	<0.01	
70	89	90	1.0	1.0	0.18	<0.01	
1	90	91	1.0	1.0	0.03	<0.01	
D4772	91	92	1.0	1.0	<0.01	<0.01	

SPECIFIC GRAVITY

Determined by:

Depth (m) :
Rock Type :
S.G. :

GEOPEKO LIMITED - KING ISLAND

CHECK ASSAY DATA

D.D.H. D 000/5

LAB.	K.I.S.		LAB. K.I.S.			LAB. AMDEL			LAB. ACSL			
Original Sample No.	WO_3	Mo	Check Sample No.	WO_3	Mo	Check Sample No.	WO_3	Mo	Check Sample No.	WO_3	Mo	
D4737	0.31		D5023	0.33		D5024	0.375		D5025	0.38		
4747	0.51		5026	0.49		5027	0.56		5028	0.58		
4757	0.25		5029	0.28		5030	0.345		5031	0.31		
D4767	0.22		D5032	0.24		D5033	0.295		D5034	0.28		

GEOPEKO LIMITED - KING ISLAND

GEOLOGICAL LOG

D.D.H. No. D 000/5

0 - 9.5 B LENS FOOTWALL HORNFELS

Dominantly a barren dark grey to black biotite hornfels with minor (< 10%) green pyroxene hornfels.

9.5 - 46.5 BIOTITE HORNFELS

Barren grey bh. Extraordinary good quality core for this unit.
RQD 14.5 - 47.5 = 83%
Possible Faults indicated by clay recemented breccia zones at.
23.4 - 23.6
37.5 - 37.9
Note core loss (7%) in interval 35.5 - 38.5m.
Some shearing evident in core at 42.9 - 43.0m.
Hornfels is noticeably spotted 17 - 41m.

Bedding. 18m 33° L.A.O.C.
33m 15° L.A.O.C.
Carbonate vein 31.80 - 31.83.

46.5 - 56.5 PYROXENE GARNET HORNFELS

Pale mottled green pyroxene and pink brown grossular garnet groundmass containing carbonate fragments. Very weak sub oregrade mineralisation.

56.5 - 68.8 GARNET HORNFELS

Medium grained andradite garnet skarn containing abundant fine disseminated scheelite. The unit is massive and no bedding evident.

68.8 - 75.1 MARKER HORIZON

This unit is dominantly a fine grained barren grey marble with minor weakly mineralised skarn developed
71.9 - 72.1
73.0 - 73.3
Some broken core which is a thin bh interbed with slickensides developed
72.7 - 73.0

75.1 - 96.5 BANDED GARNET HORNFELS

A banded sequence of fine to medium grained andradite skarn with thin interbeds of mostly green ph but occasional white ch or grey bh.
e.g. 78 - 79m.
Fine disseminated scheelite - low grade mineralisation.
75.5 - 76.5
79 - 92
Below 89m the previously clearly defined bedding gives way to a mottled pyroxene grossular rock with no discernible bedding.

GEOPEKO LIMITED - KING ISLAND

GEOLOGICAL LOG

D.D.H. No. D 000/5

96.5 - 97.8 **BIOTITE PYROXENE HORNFELS**

Barren grey green hornfels. Bedding not clearly defined.

97.8 - 101.2 **QUARTZITE**

Barren grey massive rock. This must be stratigraphic quartzites as there is no evidence of faulting.

101.2 E.O.H.

GEOPEKO LIMITED - KING ISLAND

LOG OF D.D.H. NO: D 000/3

PLANNING

Proposer: M. J. Danielson — Depth: 100 metres

Location: Dolphin Mine
220000 E Drill Cuddy.

Purpose of hole: Oreblocking

Co-ordinates: 220000 E 564130 N

Inclination: - 44 — Target depth: 8 metres

Bearing: 180 ISG°Grid — °Magnetic

Target: - E - N

Approved by: M. C. Rogers — Date: 20.11.73

SURVEY

Survey Co-ords: - E - N

Survey bearing: 180ISG°Grid — °Magnetic

Surveyed in by: K.I.S. — Date: 10.11.73

Actual Co-ords: 220000.1 E 564126.9 N

R.L. of collar: -59.0 metres — Inclination of hole: -45°

Picked up by: M. Marchant — Date: 27.2.74

SUMMARY

Logged by: P. Volk

Results: C lens. 4 - 17.5 at 3.94% WO_3
54 - 69 at 1.32% "
72 - 82 at 0.51% "

DRILLING

Driller / Contractor: A.D.D.

Date commenced: 23.1.74 — Date terminated: 10.2.74

Casing:	Size :	HQ				
	Depth:	1.52				
Core:	Size :	NQ	BQ			
	Depth:	1.52	103.93			

Wedge Runoff:

Wedge placed: — Depth:

Proposed by: — Approved by:

Reason:

Extension: Nil — Final depth: 103.93 metres

Reason for termination: Hole passed into unmineralised footwall beds.

Condition of hole on completion:

Casing :

Cemented: Yes

Bore hole survey: Surveyed to 103.~~##~~6 metres.

Water: 0 - 20.4 Normal water pressure. 20.4 - E.O.H. A loss of water at 20.4 and a drop in water return to E.O.H.

GEOPEKO LIMITED - KING ISLAND

SUMMARY BORE HOLE SURVEY DATA

D.D.H. NO. D 000/3

Survey method : Multishot Camera
Final depth : 103.93
Casing depth : 1.52 BX

Depth surveyed to : 103.6 m
Date surveyed : 10.2.74
Surveyed by : V. Powell
Checked by : M. J. Danielson

DEPTH	Bearing		Inclination		True Vertical depth	Co-oridinates	
	Grid	Mag.	Read	Corrected		E	N S
15.2		174°		-45°15'	10.78	1.28	10.69
30.5		174°30'		-45°45'	21.67	2.40	21.30
45.7		174°		-46°	32.63	3.46	31.83
61.0		172°45'		-46°	43.58	4.71	42.35
76.2		171°		-45°45'	54.50	6.22	52.86
91.4		171°30'		-45°15'	65.39	7.84	63.40
103.6		173°		-46°	74.13	8.87	71.84

REMARKS

GEOPEKO LIMITED - KING ISLAND

SUMMARY STRUCTURAL DATA

D.D.H. NO. D 000/3

Depth Interval (metres)	Rock Type	Fractures / Metre	Joint Angle	Joint Filling	Bedding Angle	% Core Recovery	Broken Core % >10cms (R.Q.D.)	Remarks (weathering)
0 - 17.5	Pgh/gh							Core split
17.5 - 22.5	Pgh	6					87	
22.5 - 25.0	bh				25m. 90°	84		
25.0 - 30.0	bh	11					55	
30.0 - 31.5	Pgh							Core split
35.0 - 39.0	Pgh							Core split
39.0 - 45.0	Pgh	7					73	
45.0 - 47.0	Pgh							Core split
47.0 - 54.0	Pgh	6					81	
54.0 - 82.0	gh							Core split
84.5 - 85.5	ph/bh							Core split
85.5 - 100.0	banded footwall beds	7			45°		75	
100.0 - 101.5		+20					0	
101.5 - 102.93		6					80	

FURTHER DATA & REMARKS (Compression Tests)

GEOPEKO LIMITED - KING ISLAND

ASSAY DATA

D.D.H. NO. D 000/3

SAMPLE NO.	DEPTH (METRES) From	To	Length	Length recovered	ELEMENTS WO_3	Mo	check No	check WO_3	check Assays Mo	COMMENTS
C 0901	1	2	1.0		21.20	0.47				
1461	2	3			0.14	<0.01				
1462	3	4			0.09	<0.01				
C 0902	4	5	"	4.0	19.60	0.42	C1746	20.9	0.72	
3	5	6	"		1.32	0.06				
4	6	7	"		1.64	0.07				
5	7	8	"		1.88	0.05				
6	8	9	"	4.0	5.10	0.13				
7	9	10	"		0.37	0.02				
8	10	11	"		2.53	0.07				14 m at
9	11	12	"		2.85	0.08				3.94% WO_3
10	12	13	"		2.41	0.07	C1746	2.45	0.08	3.52
1	13	14	"		1.90	0.06				
2	14	15	"		2.40	0.07				
3	15	16	"		3.80	0.11				
4	16	17	"		2.90	0.08				
C 0915	17	~~17.5~~ 18	~~0.5~~	4.0	6.50	0.16				
1566	18	19			0.09	<0.01				
1567	29	30			0.06	<0.01				
C 0916	30	31	1.0		0.80	0.01				
C 0917	31	31.5	0.5		0.12	0.01	C1756	0.10	<0.01	
C 0918	35	36	1.0		0.13	0.01				
9	36	37	"		0.20	0.01				
20	37	38	"		0.30	0.01				
C 0921	38	39	"		0.07	0.01				
C 0922	45	46	"		0.13	0.04				
C 0923	46	47	"		0.17	<0.01				
1568	52	53			0.08	0.20				
1569	53	54			0.06	<0.01				
C 0924	54	55	"		0.98	0.04				

SPECIFIC GRAVITY

Depth (m) :

Rock Type :

S.G. :

Determined by:

GEOPEKO LIMITED - KING ISLAND

ASSAY DATA

D.D.H. NO. D 000/3

SAMPLE NO.	DEPTH (METRES) From	To	Length	Length recovered	ELEMENTS WO_3	Mo	CMD No.	check WO_3	Assay Mo	COMMENTS
C 0925	55	56	1.0		1.90	0.05				
6	56	57	"		1.20	0.04				
7	57	58	"		1.40	0.04				
8	58	59	"		5.0	0.11				
9	59	60	"		2.90	0.08	C1957	2.9	0.10	
30	60	61	"		1.24	0.03				
1	61	62	"		1.42	0.04				15 m at
2	62	63	"		0.35	0.01				1.32% WO_3
3	63	64	"		1.10	0.03				
4	64	65	"		0.62	0.02				
5	65	66	"		0.31	0.01				
6	66	67	"		0.38	0.02				
7	67	68	"		0.44	0.02				
8	68	69	"		0.54	0.02				
9	69	70	"		0.18	0.02				
× 40	70	71	"		0.26	0.02	C1956	0.27	<0.01	
1	71	72	"		0.14	0.01				
2	72	73	"		0.50	0.02				
3	73	74	"		0.72	0.02				
4	74	75	"		0.45	0.01				
5	75	76	"		0.24	0.01				
6	76	77	"		0.56	0.04				10 m at
7	77	78	"		0.82	0.03				0.51% WO_3
8	78	79	"		0.83	0.03				
9	79	80	"		0.25	0.02				
C 0950	80	81	"		0.39	0.02				
C 0952	81	82	"		0.37	0.01	C1955	<0.01	<0.01	
1463	82	83.5	1.5	1.5	<0.01	<0.01				
1464	83.5	84.5			<0.01	<0.01				
C 0953	84.5	85.5	1.0	1.0	0.51	0.01				

SPECIFIC GRAVITY

Depth (m) :

Rock Type :

S.G. :

Determined by:

GEOPEKO LIMITED - KING ISLAND

CHECK ASSAY DATA

D.D.H. D 000/3

LAB.	K.I.S.		LAB.	K.I.S.		LAB.	K.I.S.		LAB.	K.I.S.	
Original Sample No.	WO_3	Mo.	Check Sample No.	WO_3	Mo.	Check Sample No.	WO_3	Mo.	Check Sample No.	WO_3	Mo.
C 0902	19.60	0.42				C 1748	20.9	0.72	D 2229	20.9	0.86
0910	2.41	0.07				1746	2.45	0.08	2216	2.45	0.07
0917	0.12	0.01	D 2186	0.12	< 0.01	1756	0.10	<0.01	2201	0.10	<0.01
0929	2.90	0.08	D 2187	3.10	0.11	1757	2.90	0.10	2204	3.10	0.11
0940	0.26	0.02	D 2189	0.24	0.01	1758	0.27	<0.01	2222	0.27	0.01
0952	0.37	0.01				1755	<0.01	<0.01	2200	<0.01	<0.01
C 0902	19.60	0.42	D 2116	19.1	0.80	D 2388	19.60	0.85			
0910	2.41	0.07	2117	2.7	0.10	2389	2.72	0.11			
0917	0.12	0.01	2118	0.12	< 0.01	2390	0.13	<0.01			
0929	2.90	0.08	2119	3.60	0.07	2391	2.52	0.12			
0940	0.26	0.02	2120	0.25	0.01	2392	0.25	0.02			
0952	0.37	0.01	2121	0.05	0.01	2393	0.05	<0.01			

GEOPEKO LIMITED - KING ISLAND

CHECK ASSAY DATA

D.D.H. D 000/3

LAB.	K.I.S.		LAB.	A.M.D.L.		LAB.	A.C.S.L.		LAB.			
Original Sample No.	WO_3	Mo.	Check Sample No.	WO_3	Mo.	Check Sample No.	WO_3	Mo.	Check Sample No.	WO_3	Mo.	
C 0902	19.60	0.42	D 0255	17.28	0.48	D 0256	16.8	0.007				
C 0952	0.37	0.01	D 0257	0.06	0.02	D 0258	0.07	0.07				

GEOPEKO LIMITED - KING ISLAND

GEOLOGICAL LOG

D.D.H. NO. D 000/3

0 - 4.11 PYROXENE GROSSULAR-GARNET HORNFELS

The pyroxene rich sections have fractures chlorite filled. The garnet is grossularite. Only very scattered mineralization throughout except for an extremely scheelite rich quartz vein of 35cm between the 1st and 2nd metres. This assayed 21.20% WO_3 and 0.47% Mo.

4.11 - 17.33 GARNET HORNFELS/PYROXENE HORNFELS

Almost all brownish garnet hornfels except for unmineralized regions of greenish pyroxene hornfels which occur between 8.70 - 9.80m and 14.20 - 14.40m. Quartz veining is common throughout and sometimes these contain large scheelite crystals as is the case between 8.56 - 8.62. Sulphides are common throughout with higher grades between 4.15 - 4.90m and 17.00 - 17.30m. A competent rock with few fractures. Assaying between 4m and 17.5m, averaged 4.09% WO_3 and 0.11% Mo. This unit is possibly mineralized pgh.

17.33 - 21.70 PYROXENE GARNET HORNFELS

Scatted throughout are calcite ovoids often rimmed by brown grossular garnet. Some quartz veining, with scheelite in a small quartz vein at 21.50m. Generally mineralization is very limited. A competent rock with the few fractures chlorite filled.

21.70 - 29.07 BIOTITE HORNFELS

Bedding is perpendicular to core axis. Slightly pyroxene rich at the beginning and end of the unit. Generally the core is moderately fractured with fractures chlorite and carbonate filled, but the core is very fractured in the vicinity of 29m. Unmineralized.

29.07 - 54.20 PYROXENE GARNET HORNFELS

Typical greenish-grey pgh with characteristic calcite ovoids often rimmed by brown grossular garnet and containing dark green diopside. To a depth of 35.35m the pgh is well fractured with fractures carbonate filled, but from 35.35m only slightly carbonate veined and fractured.

Aplite veining occurs between 39.10 - 41.35m and between 43.33 - 43.65m. Within the last metre biotite hornfels comes in. Mineralization between 30.00 - 31.50m, averaged 0.46% WO_3 and 0.01% Mo, which is typical for the pgh. Also between 45 - 47m averaged 0.15% WO_3 and 0.02% Mo.

54.20 - 83.10 C LENS

The pyroxene banded garnet skarns are moderately mineralized with finely disseminated scheelite. A slightly higher grade ore occurs between 58.30 - 58.53m. The average ore grade between 54 - 82m is 0.76% WO_3 and 0.02% Mo.

59m breccia some oxidation

The garnet skarns are moderately fractured and carbonate veined as are the smaller interbedded unmineralized areas. These interbedded bands have the following lithologies.

below 62m skarn is bedded.

Between 56.70 - 57.43 unbedded grossular garnet pyroxene hornfels, 62.47 - 63.10m bedded biotite pyroxene hornfels, 63.87 - 64.15m grossular garnet hornfels, 70.60 - 71.85m bedded pyroxene hornfels, garnet hornfels, angle of bedding to core axis is approx. 20°, 75.45 - 76.26 bedded garnet pyroxene hornfels, no carbonate veining.

83.10 - 84.66 PYROXENE BIOTITE HORNFELS

A barren well bedded unit, moderately fractured.

84.66 - 87.20 TYPICAL C LENS (AS ABOVE)

Mineralization is very lightly scattered. The ore grade between 84.50 and 85.50 is 0.51% WO_3 and 0.01% Mo.

87.20 - 97.45 PYROXENE BIOTITE GARNET HORNFELS

A banded unit, predominantly of pyroxene and biotite hornfels, interbedded with smaller grossular garnet, marble layers. Marble occurs within the grossular garnet bands and these garnet bands are between 94.60 - 94.86m, 96.55 - 96.55m, 97.26 - 97.45m.

Very slightly mineralized between 94.40 - 94.60 and 95.64 - 95.86m, elsewhere isolated specks of scheelite are found. Moderately fractured with carbonate infillings. A dark greenish spotted aplite vein occurs between 91.60 - 91.66m.

97.45 - 98.67 PYROXENE BIOTITE HORNFELS

A well bedded unit, highly fractured with sulphides and chlorite on fractures. The angle of bedding to core axis is approx. 45^{o}.

98.67 - 100.34 PYROXENE BIOTITE GARNET HORNFELS

Bedding at approx. 40^{o} to core axis. Moderately fractured with fractures carbonate filled. Marble occurs within garnet bands between 99.22 - 99.33m. Unmineralized.

103.93 - 103.93 PYROXENE BIOTITE HORNFELS

Bedding at approx. 10^{o} to core axis. Joints and bedding within the biotite hornfels have a high sulphide content. Carbonate veining is abundant. The core from approx. 100.00 - 101.32m is extremely fractured, indicating the position of a possible fault.

E.O.H.

GEOPEKO LIMITED - KING ISLAND

LOG OF D.D.H. NO: D 000/2

PLANNING

Proposer: M. J. Danielson — Depth: 60 metres

Location: Dolphin Mine
220000E Drill Cuddy.

Purpose of hole: Oreblocking.

Co-ordinates: 220000 E 564130 N

Inclination: -65° — Target depth: 4 metres

Bearing: 180 ISG °Grid — °Magnetic

Target: - E - N

Approved by: M. C. Rogers — Date: 19.11.73

SURVEY

Survey Co-ords: - E - N

Survey bearing: 180ISG°Grid — °Magnetic

Surveyed in by: K.I.S. — Date: 10.11.73

Actual Co-ords: 220000.1 E 564127.2 N

R.L. of collar: -59.0 — Inclination of hole: -65

Picked up by: M. Marchant — Date: 27.2.74

SUMMARY

Logged by: P. Volk

Results: C Lens. 1 - 8 m at 3.10% WO_3
32.- 35 m at 0.44% WO_3
39 - 42 m at 0.16% WO_3 37-39m, 2m @ 0.78%

DRILLING

Driller / Contractor: A.D.D.

Date commenced: 9.1.74 — Date terminated: 22.1.74

Casing:	Size :	HQ				
	Depth:	1.52				
Core:	Size :	NQ	BQ			
	Depth:	1.52	61.72			

Wedge Runoff:

Wedge placed: — Depth:

Proposed by: — Approved by:

Reason:

Extension: Nil — Final depth: 61.72 metres

Reason for termination: Hole was in unmineralised footwall beds.

Condition of hole on completion:

Casing :

Cemented: No (Hole caved on completion)

Bore hole survey: No (Hole caved on completion)

Water: 0 - 42.7 m. Normal water pressure. Below 48.8 m no water return.

Comments on drilling conditions:
Hole caved on completion and prevented surveying and cementing.

GEOPEKO LIMITED - KING ISLAND

SUMMARY STRUCTURAL DATA

D.D.H. NO. D 000/2

Depth Interval (metres)	Rock Type	Fractures / Metre	Joint Angle	Joint Filling	Bedding Angle	% Core Recovery	Broken Core % >10cms (R.Q.D.)	Remarks (weathering)
0 - 8.0								Core split
8.0 - 25.0		6					87	20.7 - 25.2 chlorite on joint surfaces.
25.0 - 42.0								Core split
42.0 - 47.0		7			40^{o}		83	
46.5 - 47.0								Core split
52.0 - 55.0					40^{o}			Core split
55.0 - 61.72		10					64	

FURTHER DATA & REMARKS (Compression Tests)

GEOPEKO LIMITED - KING ISLAND

ASSAY DATA

D.D.H. NO. D 000/2

	SAMPLE NO.	DEPTH (METRES) From	To	Length	Length recovered	ELEMENTS WO_3	Mo	Check No.	Check Assays WO_3	Mo	COMMENTS
X	C 0822	0	1	1.0		0.18	0.01	[illegible]	0.07	0.01	
	3	1	2	"	4.0	11.20	0.27				
	4	2	3	"		1.20	0.04				
	5	3	4	"	4.0	4.30	0.11				7 m at
	6	4	5	"		1.61	0.04				3.10% WO_3
	7	5	6	"		2.70	0.06				2.03
	8	6	7	"		0.45	0.01				ul dough
	C 0829	7	8	"		0.26	0.01				assays
	C 1565	8	9	"		0.02	<0.01				[illegible]
	C 0830	25	26	"		0.22	0.01				
X	1	26	27	"		1.10	0.05	[illegible]	1.12	0.05	
	2	27	28	"		0.12	0.01				
	3	28	29	"		0.13	0.02				
	4	29	30	"		0.25	0.02				
	5	30	31	"		0.05	0.08				
	6	31	32	"		0.08	0.01				
	7	32	33	"		0.46	0.01				3 m at
	8	33	34	"		0.40	0.02				0.44% WO_3
	9	34	35	"		0.46	0.07				
	40	35	36	"		0.14	0.04				
	1	36	37	"		0.19	0.15				
	2	37	38	"		0.54	0.05				2 m at
X	C 0843	38	39	"		1.02	0.02	[illegible]	1.04	0.03	0.78% WO_3
	4	39	40	"		0.17	0.02				
	5	40	41	"		0.16	0.02				
	C 0846	41	42	"		0.16	0.01				
	C 0847	46.5	47.0	0.5		0.18	0.01				

SPECIFIC GRAVITY

Depth (m) :

Rock Type :

S.G. :

Determined by:

GEOPEKO LIMITED - KING ISLAND

ASSAY DATA

D.D.H. NO. D 000/2

SAMPLE NO.	DEPTH (METRES)				ELEMENTS						COMMENTS
	From	To	Length	Length recovered	WO_3	Mo		[illegible]	check assay WO_3	check assay Mo	
C 0848	52	53	1.0		0.10	0.01					
9	53	54	"		0.06	0.01					
C 0850	54	55	"		0.20	0.01		[illegible]	0.21	0.01	

SPECIFIC GRAVITY

Depth (m) :

Rock Type :

S.G. :

Determined by:

GEOPEKO LIMITED - KING ISLAND

CHECK ASSAY DATA

D.D.H. D000/2

LAB.	K.I.S.		LAB.	K.I.S.		LAB.	K.I.S.		LAB.	K.I.S.	
Original Sample No.	WO_3	Mo.	Check Sample No.	WO_3	Mo.	Check Sample No.	WO_3	Mo.	Check Sample No.	WO_3	Mo.
C 0822	0.18	0.01	C 1744	0.07	0.01	D 2214	0.08	< 0.01	D 2112	0.08	<0.01
0831	1.10	0.05	1741	1.12	0.05	2212	1.20	0.06	2113	1.00	0.05
0843	1.02	0.02	1743	1.04	0.03	2215	1.10	0.03	2114	1.10	0.04
0850	0.20	0.01 0.01	1740	0.21	0.01	2211	0.22	0.01	2115	0.25	0.01

GEOPEKO LIMITED - KING ISLAND

CHECK ASSAY DATA

D.D.H. D 000/2

mok

LAB.	K.I.S.		LAB.	K.I.S.		LAB.			LAB.			
Original Sample No.	WO_3	Mo.	Check Sample No.	WO_3	Mo.	Check Sample No.	WO_3	Mo.	Check Sample No.	WO_3	Mo.	
C 0822	0.18	0.01	D 2384	0.08	0.01							
0831	1.10	0.05	2385	0.96	0.01							
0843	1.02	0.02	2386	1.10	0.06							
0850	0.20	0.01	2387	0.26	0.01							

GEOPEKO LIMITED - KING ISLAND

GEOLOGICAL LOG

D.D.H. NO. D 000/2

0 - 8.34 GARNET HORNFELS

Predominantly an andradite garnet hornfels with some minor pyroxene banding. Small amounts of grossular garnet indicate a possible mineralized pgh. Generally irregularly bedded with small carbonated regions. Little or no mineralization in the first 1.5m. A quartz vein from 1.65 to 2.16m contains scheelite crystals. Quartz veining from 2.64 to 3.12m contains scheelite. From 3.22 to 8.34m scheelite is sparsely disseminated, with richer bands from 3.12 to 4.00m, 4.40 to 4.73m, 5.20 to 5.61m, 6.84 to 6.93m. The average ore grade from 0 to 8m is 2.74% WO_3 and 0.07% Mo.

8.34 - 14.60 BIOTITE PYROXENE HORNFELS

A banded light green/reddish brown rock. No mineralization. A moderately competent rock. The angle of bedding to core axis changes from 50° at 8.50m to 45° at 9.50m and 40° at 10.50m and approx. 10° at 11.50m.

14.60 - 20.61 DISTURBED BIOTITE PYROXENE HORNFELS

Bedding distorted with small scale faulting and the fractures are often sulphide filled. No mineralization.

20.61 - 22.55 BIOTITE PYROXENE GARNET HORNFELS

No mineralization. Moderately fractured with chlorite and carbonate filling the fractures. Bedding appears to be parallel to core axis.

22.55 - 36.79 PYROXENE GARNET HORNFELS

Very weakly mineralized throughout with slightly higher grades between 25.65 and 26.09m, 26.59 and 26.95m, 32.94 and 33.05m and 34.12 and 34.39m. Carbonate veining is abundant up to approx. 34m, where the brownish garnet rich rock changes to a more greenish pyroxene rock. With the appearance of the pyroxene, bedding is more distinct and is at approx. 50° to core axis.

36.79 - 37.35 PYROXENE HORNFELS

A green spotted rock. No carbonate veining, no fractureing and unbedded.

37.25 - 45.55 GARNET PYROXENE HORNFELS

Scattered mineralization throughout with higher grades between 37.35 - 39.12m and 40.58 - 40.80m. Bedding in the pyroxene garnet hornfels is slightly disturbed and the fractures are carbonate filled. A barren region of green pyroxene hornfels is from 40.75 - 40.96m. The carbonate filled fractures are at an angle of 45° to core axis. From approx. 44.00m to 45.55m the hornfels become more biotite rich, is highly disturbed and is well carbonated.

The unit has several scattered pods of grossular garnet.

45.55 - 48.52 BANDED GARNET BIOTITE PROXENE HORNFELS

Bedding at approx. 40° to core axis. The garnet hornfels layers are carbonated and up to 0.65m thick. This unit becomes more biotite rich towards last 1½m.

Mineralization better between 46.70 - 46.90m.

48.52 - 49.52 MARBLE

White in colour and highly fractured.

49.52 - 50.68 APLITE

A spotted aplite with several fragments of pyroxene biotite hornfels.

50.68 - 52.00 DISTURBED PYROXENE BIOTITE HORNFELS

The displacements are often carbonate infilled. Highly fractured rock.

52.00 - 54.82 BIOTITE PYROXENE GARNET HORNFELS

Bedding at approx. 40° to core axis. Moderately fractured with carbonate infilling. Mineralization better between 54.02 and 54.36.

54.82 - 61.72 BIOTITE PYROXENE HORNFELS

Finely banded at 45° to core axis. Relatively undisturbed with most fractures chlorite filled. From 58. - 59.23m coarse aplite veining. From approx. 61.20m, the core is more pyroxene rich with small garnet bands.

E.O.H.

GEOPEKO LIMITED - KING ISLAND

LOG OF D.D.H. NO: D 000/1

PLANNING

Proposer: M. J. Danielson — Depth: 35 metres

Location: Dolphin Mine
220000 E Drill Cuddy.

Purpose of hole: Oreblocking.

Co-ordinates: 220000 E 564130 N

Inclination: -45 — Target depth: 3 metres

Bearing: 360 ISG °Grid — °Magnetic

Target: - E - N

Approved by: M. C. Rogers — Date: 20.11.73

SURVEY

Survey Co-ords: - E - N

Survey bearing: 360ISG°Grid — °Magnetic

Surveyed in by: K.I.S. — Date: 10.11.73

Actual Co-ords: 219999.2 E 564131.0 N

R.L. of collar: -58.8 metres — Inclination of hole: -47° -43°

Picked up by: M. Marchant — Date: 27.2.74

SUMMARY

Logged by: P. Volk

Results: C lens. 0 - 6 m at 1.08% WO_3

DRILLING

Driller / Contractor: A.D.D.

Date commenced: 8.12.73 — Date terminated: 19.12.73

Casing:	Size :	HQ				
	Depth:	1.52				
Core:	Size :	NQ	BQ			
	Depth:	1.52	18.95			

Wedge Runoff:

Wedge placed: — Depth:

Proposed by: — Approved by:

Reason:

Extension: Nil — Final depth: 18.95 metres

Reason for termination: Hole passed north of No. 3 Fault into quartzites.

Condition of hole on completion:

Casing :

Cemented: Yes

Bore hole survey: Surveyed to 18.3 metres.

Water: Normal water pressure throughout.

Comments on drilling conditions:

GEOPEKO LIMITED - KING ISLAND

SUMMARY BORE HOLE SURVEY DATA

D.D.H. NO. D 000/1

Survey method : Multishot Camera
Final depth : 18.95 m
Casing depth : 1.52 m

Depth surveyed to : 18.30 m
Date surveyed : 19.12.73
Surveyed by : V. Powell
Checked by : M. J. Danielson

DEPTH M.	Bearing		Inclination		True Vertical depth	Co-oridinates	
	Grid	Mag.	Read	Corrected		E W	N
3.0	358	349	47	-43	2.07	1.40	7.18
6.1	357	348		-43	4.15	2.92	14.33
9.1	357	348		-43	6.22	4.44	21.49
12.2	357	348		-43	8.30	5.96	28.65
15.3	357	348		-43	10.36	7.48	35.80
18.3	357	348		-43	12.44	9.00	42.95

REMARKS

GEOPEKO LIMITED - KING ISLAND

SUMMARY STRUCTURAL DATA

D.D.H. NO. D 000/1

Depth Interval (metres)	Rock Type	Fractures / Metre	Joint Angle	Joint Filling	Bedding Angle	% Core Recovery	Broken Core % >10cms (R.Q.D.)	Remarks (weathering)
0 - 6.72	Pgh							Core split
6.72 - 18.95	q	15					33	-

FURTHER DATA & REMARKS (Compression Tests)

GEOPEKO LIMITED - KING ISLAND

ASSAY DATA

D.D.H. NO. D 000/1

SAMPLE NO.	DEPTH (METRES) From	To	Length	Length recovered	ELEMENTS WO_3	Mo		check WO_3	Assay Mo	COMMENTS
C 0816	0	1	1.0		0.52	0.02		0.42	<0.01	
7	1	2	"		1.90	0.07				
8	2	3	"		1.64	0.07				6 m at
9	3	4	"		1.86	0.06				1.08% WO_3
20	4	5	"		0.52	0.03				
C 0821	5	6	"		1.03	0.04		1.28	0.04	

SPECIFIC GRAVITY

Determined by:

Depth (m) :

Rock Type :

S.G. :

GEOPEKU LIMITED - KING ISLAND

CHECK ASSAY DATA

D.D.H. D 000/1

LAB.	K.I.S.		LAB.	K.I.S.		LAB.	K.I.S.		LAB.	K.I.S.	
Original Sample No.	WO_3	Mo.	Check Sample No.	WO_3	Mo.	Check Sample No.	WO_3	Mo.	Check Sample No.	WO_3	Mo.
C 0816	0.52	0.02	C 1742	0.42	< 0.01	D 2213	0.45	0.02	D 2110	0.44	0.01
C 0821	1.03	0.04	C 1745	1.28	0.04	D 2217	1.32	0.04	D 2111	0.96	0.03

GEOPEKO LIMITED - KING ISLAND

CHECK ASSAY DATA

D.D.H. D 000/1

Mo K MOK MoA MoC

LAB.	K.I.S.		LAB.	K.I.S.		LAB. A.M.D.L.			LAB. A.C.S.L.		
Original Sample No.	WO_3	Mo.	Check Sample No.	WO_3	Mo.	Check Sample No.	WO_3	Mo.	Check Sample No.	WO_3	Mo.
C 0816	0.52	0.02	D 2382	0.44	0.01	D 0253	0.86	0.04	D 0254	0.89	0.16
C 0821	1.03	0.04	D 2383	0.96	0.04						

GEOPEKO LIMITED - KING ISLAND

GEOLOGICAL LOG

D.D.H. NO. D. 000/1

0 - 5.46 GARNET PROXENE HORNFELS

For the first 4m, generally a greenish rock, being biotite rich in the upper 0.5m. Bedding indistinct. Moderately fractured with carbonate filled fractures at 50-60° to core axis. To 1.58m only small isolated mineralization, however, from 1.58m to 4.08m finely disseminated scheelite occurs throughout, with richer bands from 1.58-1.70m, 2.40-2.46m and 3.83-3.86m. The ore grade from 0-6m averaged 1.08% WO_3 and 0.05% Mo.

From 4m, a competent section, bedding more distinct with pink grossularite garnet and pyroxene layers. No mineralization except for disseminated scheelite from 4.55-4.73m and from 4.82-4.87m. Scheelite occurs in a quartz vein from 5.20-5.45m.

5.46 - 6.72 PYROXENE BIOTITE HORNFELS

No bedding evident. Well jointed, with numerous fractures in all orientations, giving no clear evidence for faulting. No mineralization.

6.72 - 18.95 QUARTZITE

Generally a grey quartzite, bedding indistinct, with no mineralization. Down to approximately 8m, the quartzite was spotted, then becoming more biotite rich. Jointing in all orientations with larger joints carbonate filled. Core highly fractured for last two metres.